PRICE AND GESS

ATTORNEYS AT LAW

JOSEPH W. PRICE
ALBIN H. GESS
MICHAEL J. MOFFATT
GORDON E. GRAY III
BRADLEY D. BLANCHE
J. RONALD RICHEBOURG

OF COUNSEL
JAMES F. KIRK

2100 S.E. MAIN STREET, SUITE 250

IRVINE, CALIFORNIA 92614-6238

A PROFESSIONAL CORPORATION
TELEPHONE: (949) 261-8433
FACSIMILE: (949) 261-9072
FACSIMILE: (949) 261-1726

e-mail: jwp@pgpatentlaw.com

DRAWINGS – THIRTY-ONE (31) SHEETS

Applicant(s): Kazuhiko Yamauchi et al.

Title: OPTICAL DISC STORING BOTH VIDEO TITLES PROVIDED WITH AV FUNCTIONS ...

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PTO/SB/05 (08-00)

FIG. 1

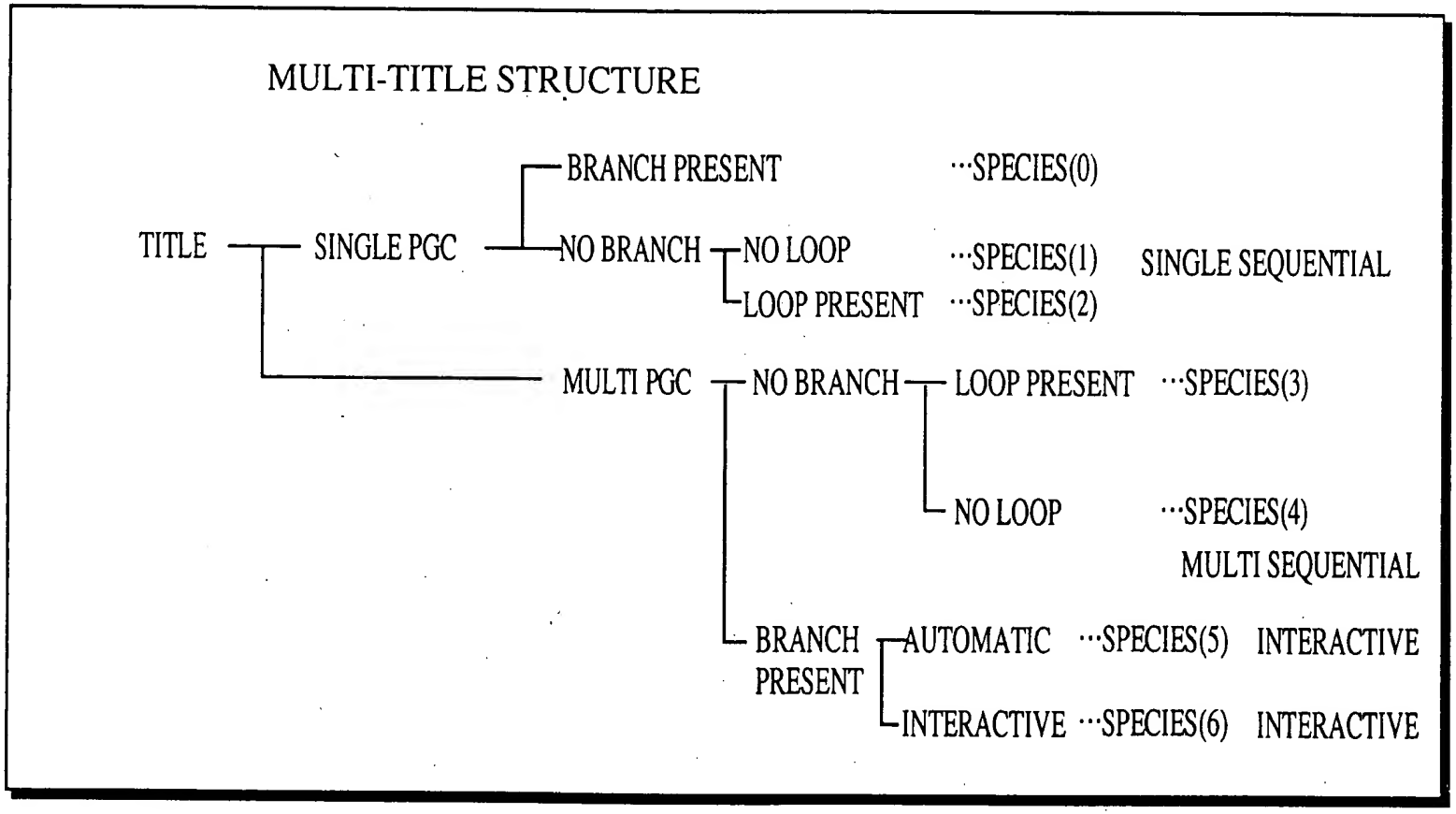

MULTI-TITLE STRUCTURE
TITLE
SINGLE PGC
BRANCH PRESENT
…SPECIES(0)
NO BRANCH
NO LOOP
…SPECIES(1)
SINGLE SEQUENTIAL
LOOP PRESENT
…SPECIES(2)
MULTI PGC
NO BRANCH
LOOP PRESENT
…SPECIES(3)
NO LOOP
…SPECIES(4)
MULTI SEQUENTIAL
BRANCH PRESENT
AUTOMATIC
…SPECIES(5)
INTERACTIVE
INTERACTIVE
…SPECIES(6)
INTERACTIVE

FIG. 2A

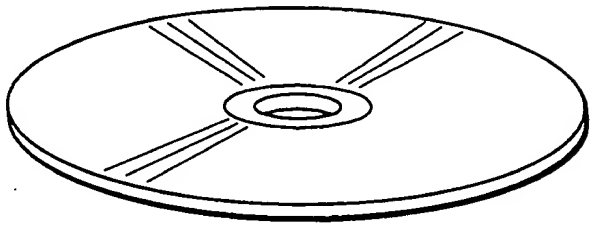


FIG. 2B

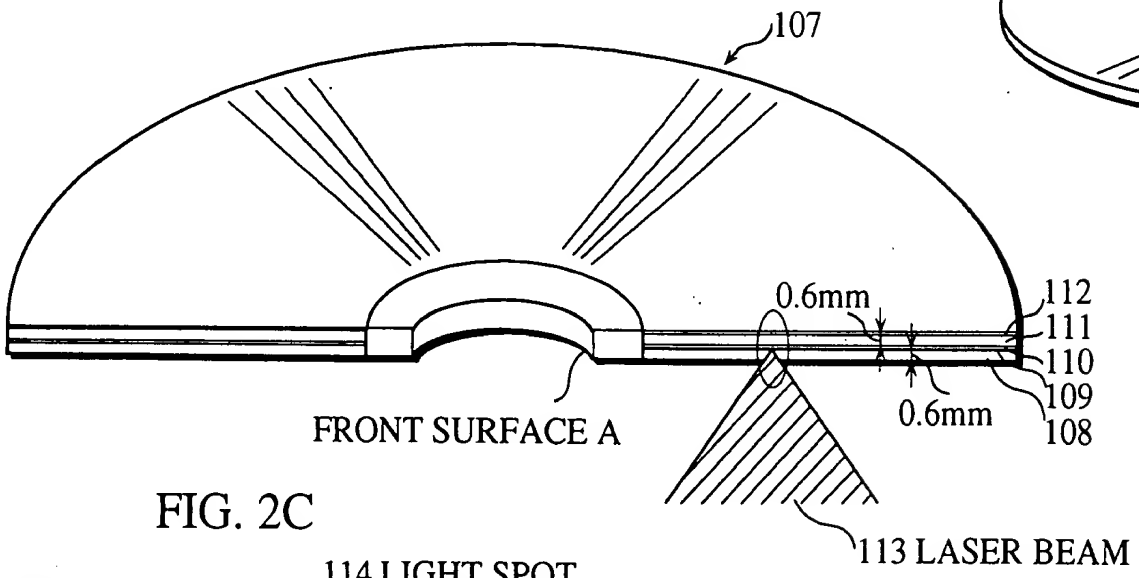


FIG. 2C

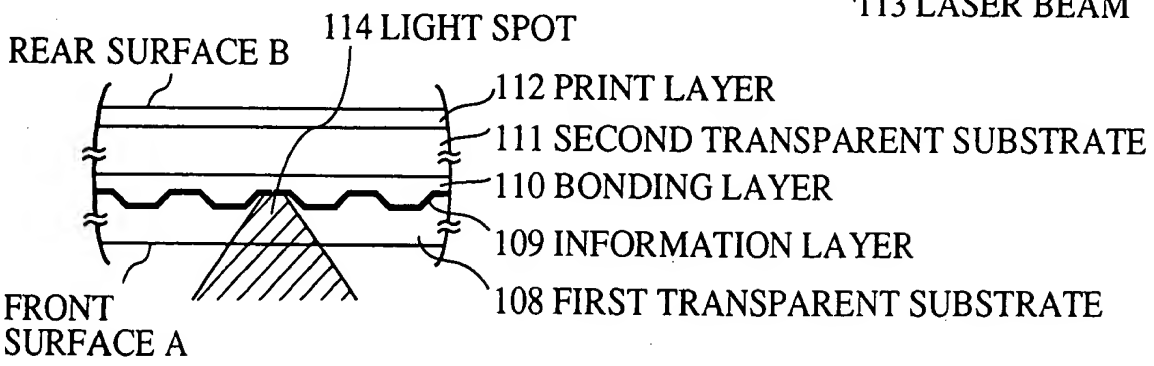


FIG. 2D

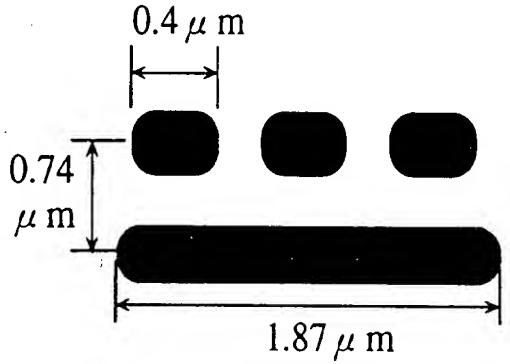


FIG. 3A

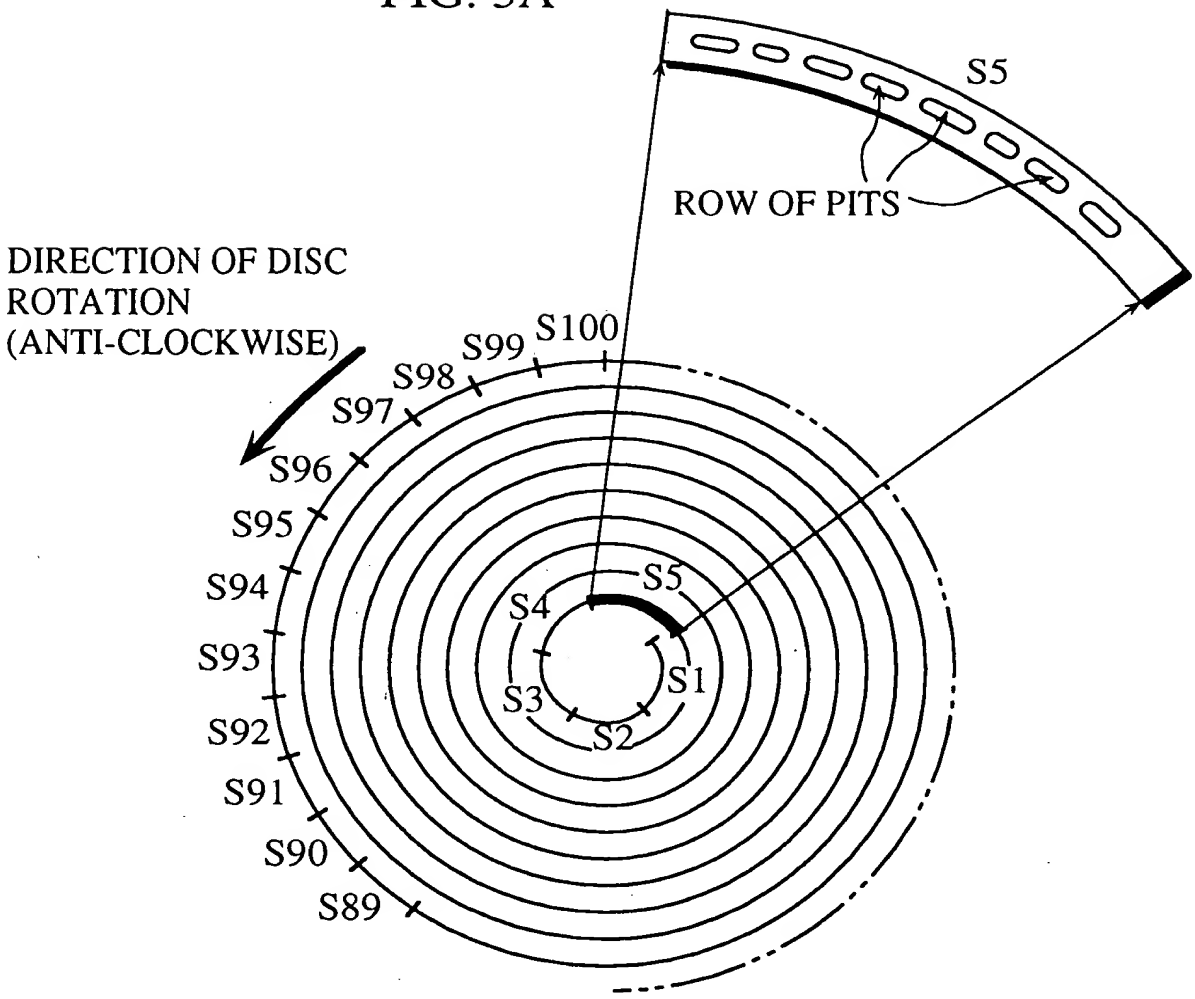

S5
ROW OF PITS
DIRECTION OF DISC ROTATION (ANTI-CLOCKWISE)
S100
S99
S98
S97
S96
S95
S94
S93
S92
S91
S90
S89
S5
S4
S1
S3
S2

FIG. 3B

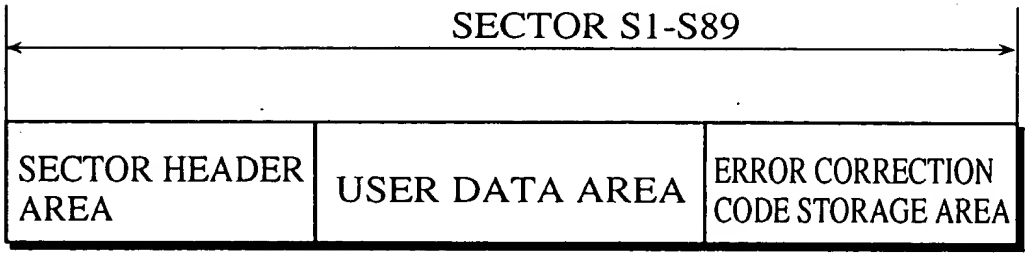

SECTOR S1-S89
SECTOR HEADER AREA
USER DATA AREA
ERROR CORRECTION CODE STORAGE AREA

FIG. 4A

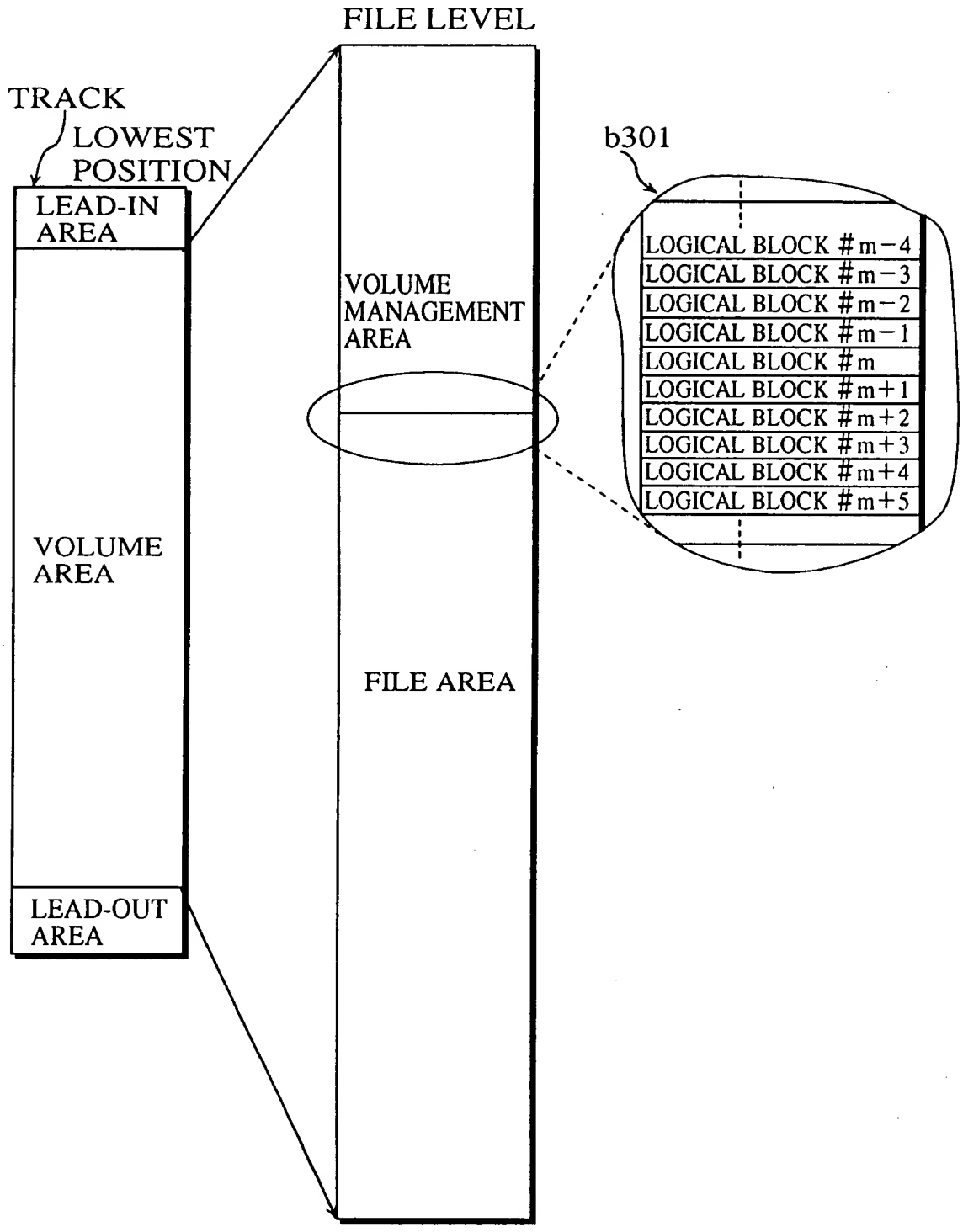

FILE LEVEL
TRACK
LOWEST POSITION
LEAD-IN AREA
VOLUME AREA
LEAD-OUT AREA
VOLUME MANAGEMENT AREA
FILE AREA
b301
LOGICAL BLOCK #m−4
LOGICAL BLOCK #m−3
LOGICAL BLOCK #m−2
LOGICAL BLOCK #m−1
LOGICAL BLOCK #m
LOGICAL BLOCK #m+1
LOGICAL BLOCK #m+2
LOGICAL BLOCK #m+3
LOGICAL BLOCK #m+4
LOGICAL BLOCK #m+5

FIG. 4B

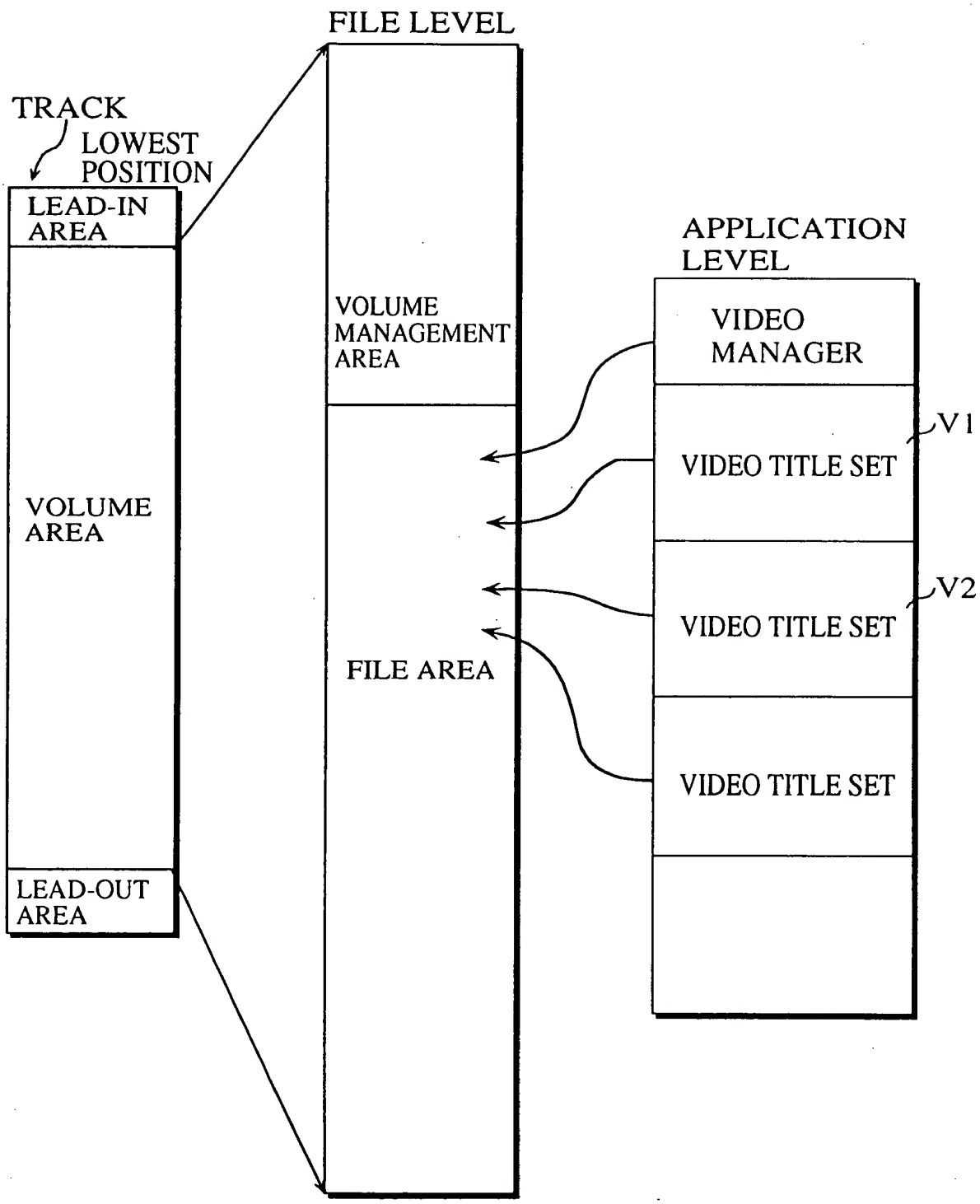

FILE LEVEL
TRACK
LOWEST POSITION
LEAD-IN AREA
VOLUME AREA
LEAD-OUT AREA
VOLUME MANAGEMENT AREA
FILE AREA
APPLICATION LEVEL
VIDEO MANAGER
VIDEO TITLE SET
V1
VIDEO TITLE SET
V2
VIDEO TITLE SET

FIG. 5A

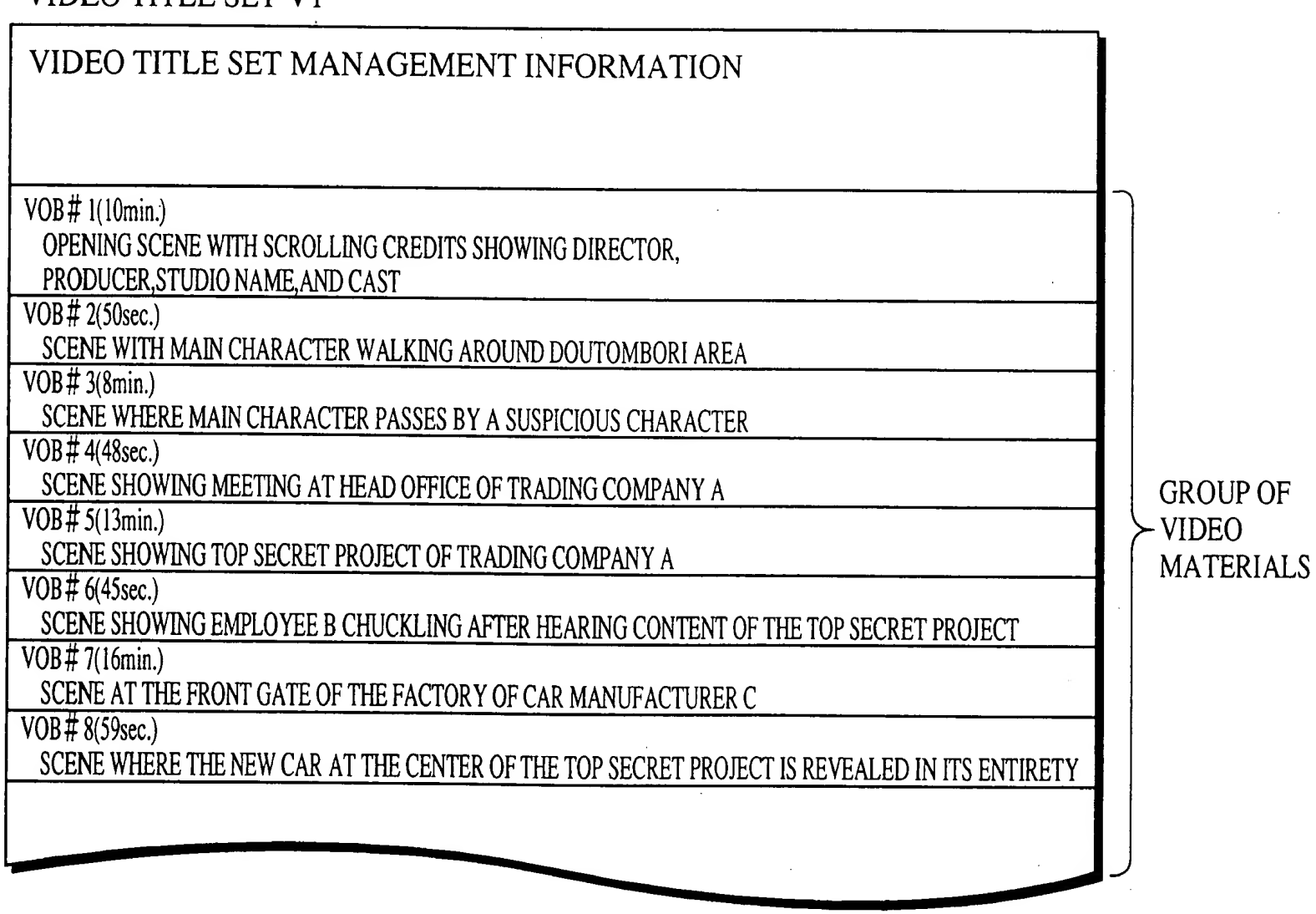
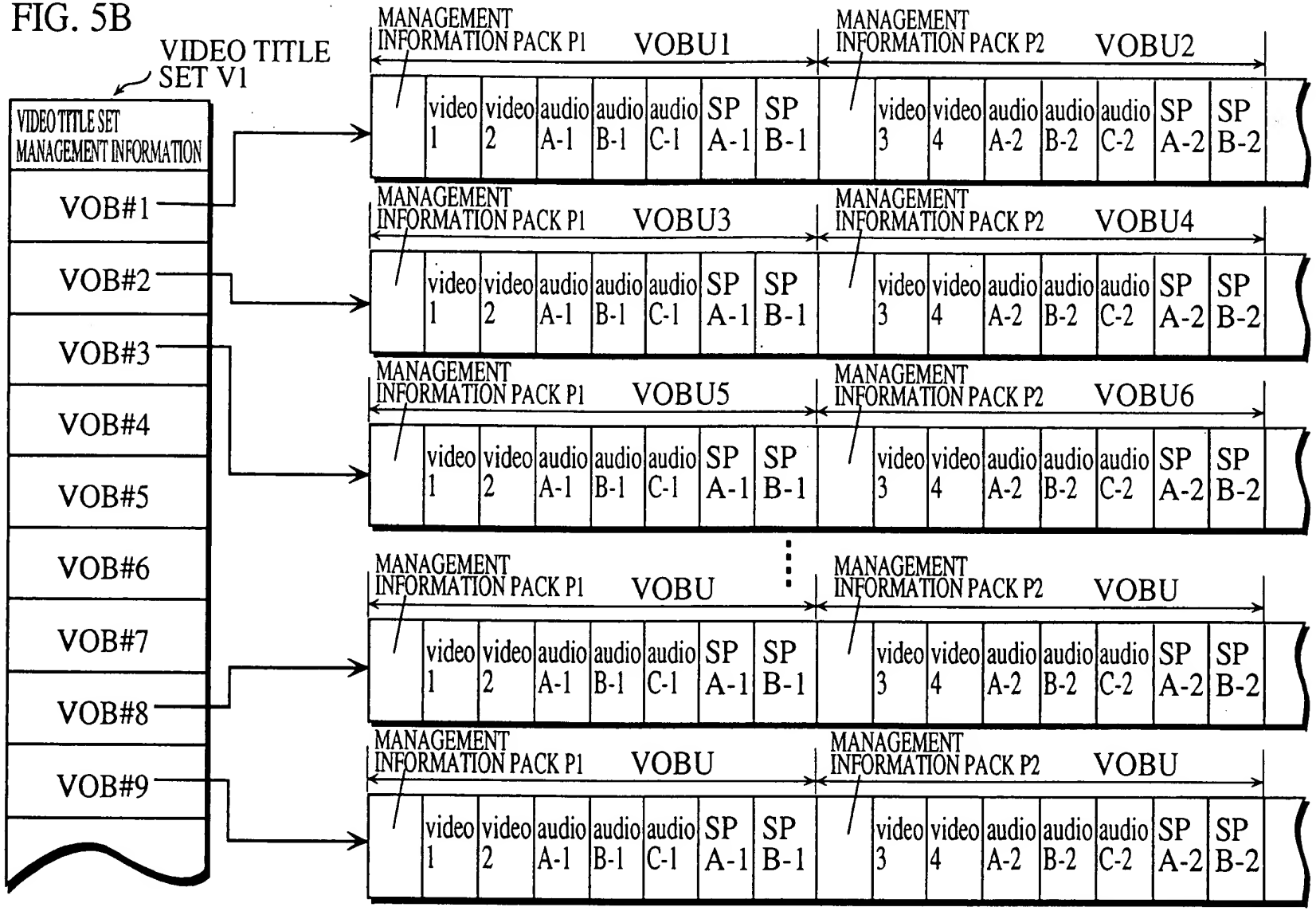

VIDEO TITLE SET V1
VIDEO TITLE SET MANAGEMENT INFORMATION
VOB# 1(10min.)
OPENING SCENE WITH SCROLLING CREDITS SHOWING DIRECTOR, PRODUCER,STUDIO NAME,AND CAST
VOB# 2(50sec.)
SCENE WITH MAIN CHARACTER WALKING AROUND DOUTOMBORI AREA
VOB# 3(8min.)
SCENE WHERE MAIN CHARACTER PASSES BY A SUSPICIOUS CHARACTER
VOB# 4(48sec.)
SCENE SHOWING MEETING AT HEAD OFFICE OF TRADING COMPANY A
VOB# 5(13min.)
SCENE SHOWING TOP SECRET PROJECT OF TRADING COMPANY A
VOB# 6(45sec.)
SCENE SHOWING EMPLOYEE B CHUCKLING AFTER HEARING CONTENT OF THE TOP SECRET PROJECT
VOB# 7(16min.)
SCENE AT THE FRONT GATE OF THE FACTORY OF CAR MANUFACTURER C
VOB# 8(59sec.)
SCENE WHERE THE NEW CAR AT THE CENTER OF THE TOP SECRET PROJECT IS REVEALED IN ITS ENTIRETY
GROUP OF VIDEO MATERIALS

FIG. 5B


VIDEO TITLE SET V1
VIDEO TITLE SET MANAGEMENT INFORMATION
VOB#1
VOB#2
VOB#3
VOB#4
VOB#5
VOB#6
VOB#7
VOB#8
VOB#9
MANAGEMENT INFORMATION PACK P1
MANAGEMENT INFORMATION PACK P2
VOBU1
VOBU2
VOBU3
VOBU4
VOBU5
VOBU6
VOBU
video 1
video 2
audio A-1
audio B-1
audio C-1
SP A-1
SP B-1
video 3
video 4
audio A-2
audio B-2
audio C-2
SP A-2
SP B-2

T00260 "5T62E60

FIG. 6

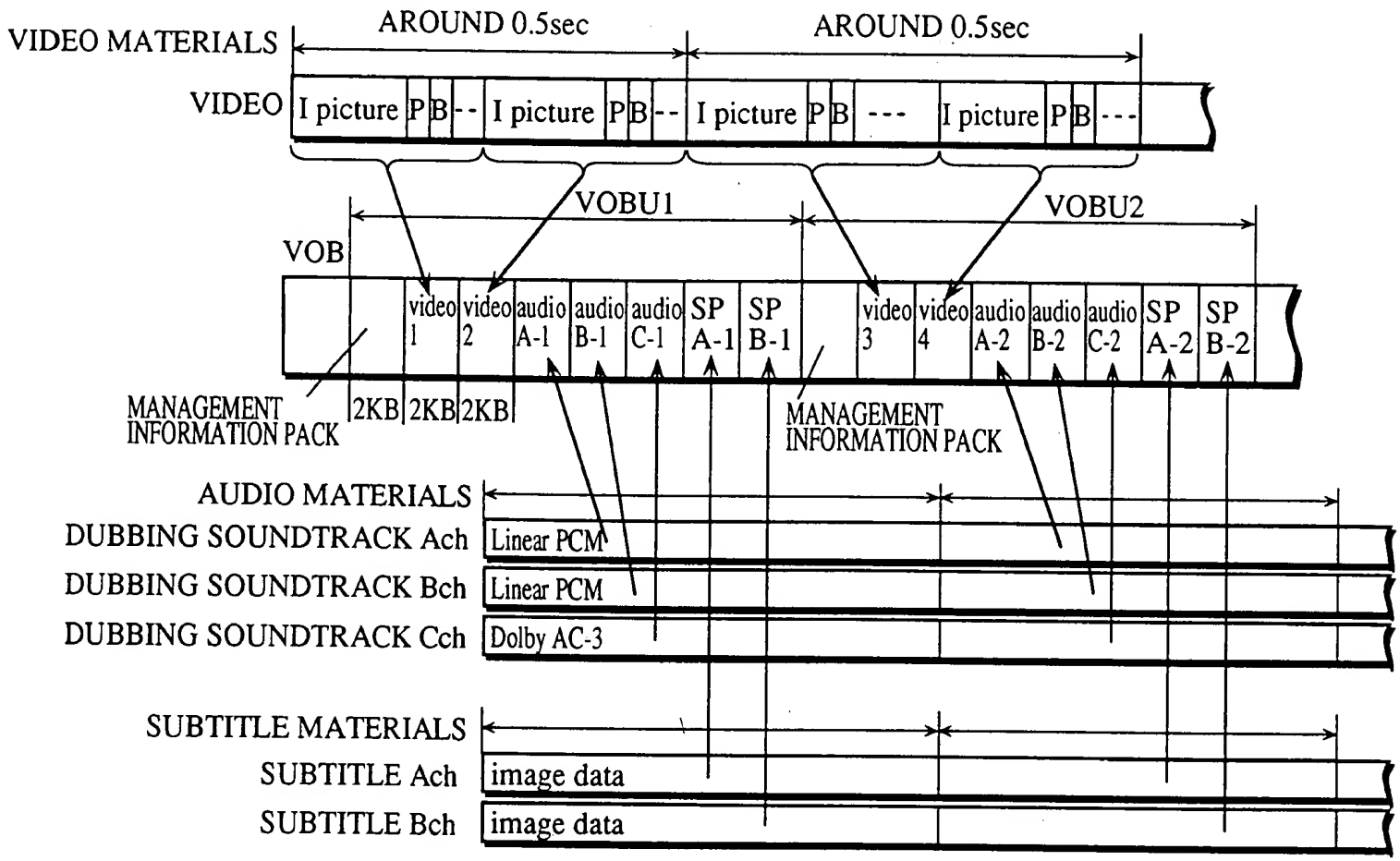


FIG. 7

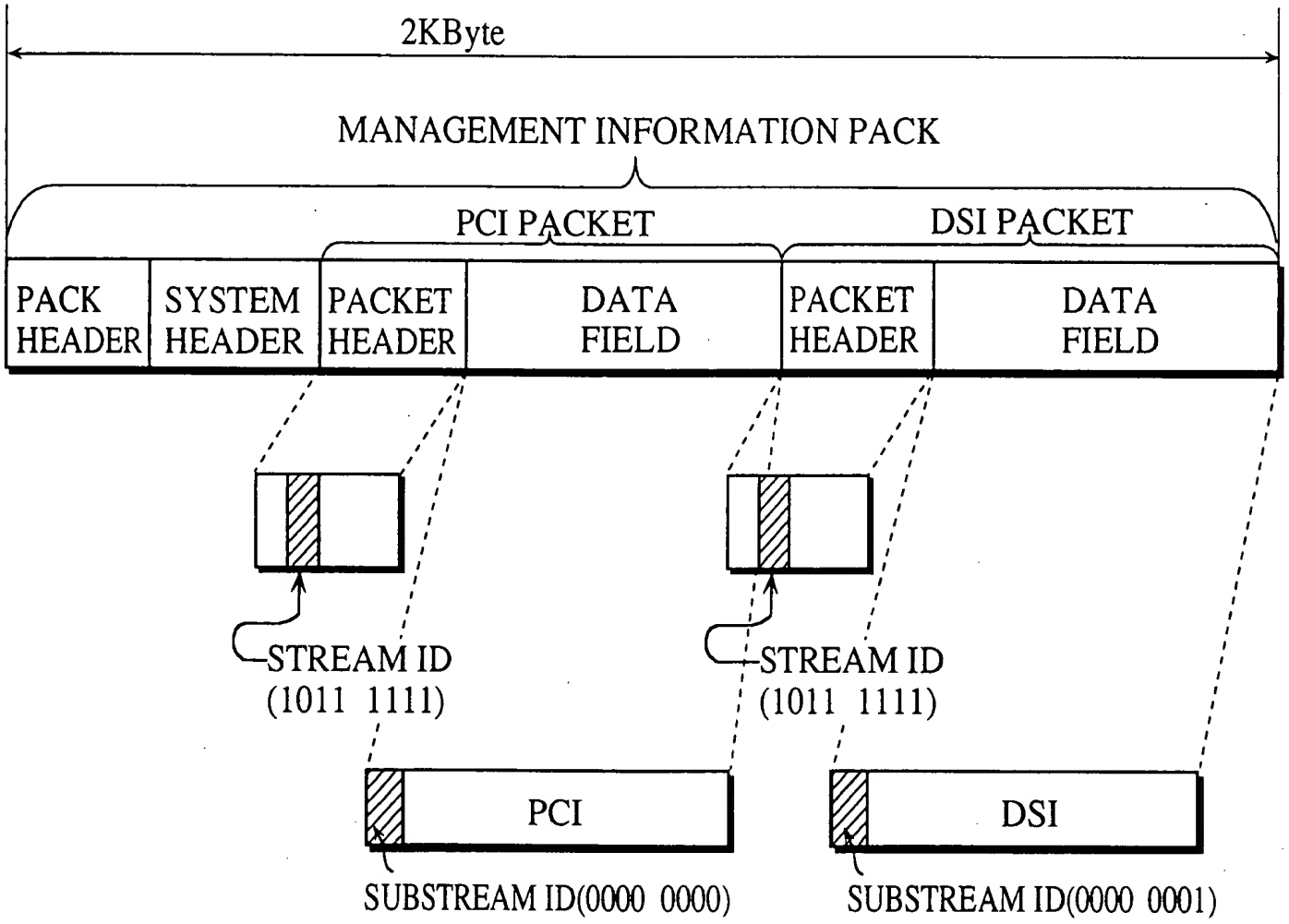

2KByte
MANAGEMENT INFORMATION PACK
PCI PACKET
DSI PACKET
PACK HEADER
SYSTEM HEADER
PACKET HEADER
DATA FIELD
PACKET HEADER
DATA FIELD
STREAM ID (1011 1111)
STREAM ID (1011 1111)
PCI
DSI
SUBSTREAM ID(0000 0000)
SUBSTREAM ID(0000 0001)

FIG. 8

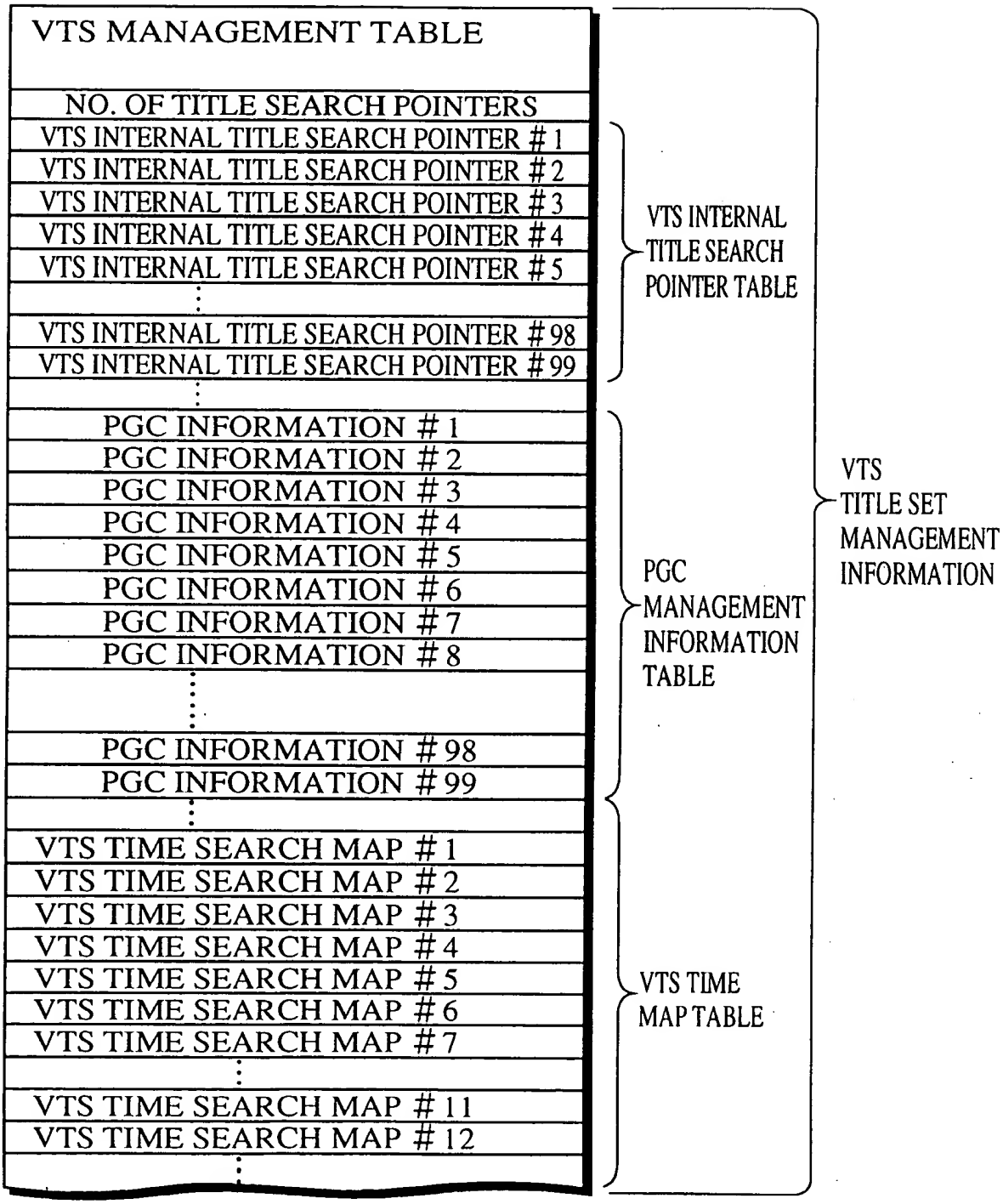

VTS MANAGEMENT TABLE
NO. OF TITLE SEARCH POINTERS
VTS INTERNAL TITLE SEARCH POINTER #1
VTS INTERNAL TITLE SEARCH POINTER #2
VTS INTERNAL TITLE SEARCH POINTER #3
VTS INTERNAL TITLE SEARCH POINTER #4
VTS INTERNAL TITLE SEARCH POINTER #5
VTS INTERNAL TITLE SEARCH POINTER #98
VTS INTERNAL TITLE SEARCH POINTER #99
PGC INFORMATION #1
PGC INFORMATION #2
PGC INFORMATION #3
PGC INFORMATION #4
PGC INFORMATION #5
PGC INFORMATION #6
PGC INFORMATION #7
PGC INFORMATION #8
PGC INFORMATION #98
PGC INFORMATION #99
VTS TIME SEARCH MAP #1
VTS TIME SEARCH MAP #2
VTS TIME SEARCH MAP #3
VTS TIME SEARCH MAP #4
VTS TIME SEARCH MAP #5
VTS TIME SEARCH MAP #6
VTS TIME SEARCH MAP #7
VTS TIME SEARCH MAP #11
VTS TIME SEARCH MAP #12
VTS INTERNAL TITLE SEARCH POINTER TABLE
PGC MANAGEMENT INFORMATION TABLE
VTS TIME MAP TABLE
VTS TITLE SET MANAGEMENT INFORMATION

FIG. 9

VIDEO TITLE SET INTERNAL TITLE SEARCH POINTER TABLE

VTS INTERNAL TITLE SEARCH POINTER #1	VTS#1.VTS INTERNAL TITLE #1・・・・Entry−PGC#1
VTS INTERNAL TITLE SEARCH POINTER #2	VTS#1.VTS INTERNAL TITLE #2・・・・Entry−PGC#2
VTS INTERNAL TITLE SEARCH POINTER #3	VTS#1.VTS INTERNAL TITLE #3・・・・Entry−PGC#3
VTS INTERNAL TITLE SEARCH POINTER #4	VTS#1.VTS INTERNAL TITLE #4・・・・Entry−PGC#4
VTS INTERNAL TITLE SEARCH POINTER #5	VTS#1.VTS INTERNAL TITLE #5・・・・Entry−PGC#5
VTS INTERNAL TITLE SEARCH POINTER #6	VTS#1.VTS INTERNAL TITLE #6・・・・Entry−PGC#6

FIG. 10A

PGC INFORMATION #1
PGC LINK INFORMATION NULL
PGC STANDARD INFORMATION NULL
PG MAP
PG1(VOB#1) PG2(VOB#3) PG3(VOB#4)
VOB POSITION INFORMATION TABLE
VOB#1(10min.) VOB#2(50sec.) VOB#3(8min.) VOB#4(48sec.) · · · ·
VOB#21(10min.) VOB#22(50sec.) VOB#23(8min.) VOB#24(48sec.) · · · ·
VOB#31(10min.) VOB#32(50sec.) VOB#33(8min.) VOB#34(48sec.)
PGC COMMAND TABLE NULL
PGC INFORMATION #2
PGC LINK INFORMATION PGC#13
PGC STANDARD INFORMATION NULL
PG MAP NULL
VOB POSITION INFORMATION TABLE
VOB#1(10min.) VOB#2(5min.) VOB#3(8min.)
PGC COMMAND TABLE NULL
PGC INFORMATION #3
PGC LINK INFORMATION NULL
PGC STANDARD INFORMATION 5Loop Random
PG MAP NULL
VOB POSITION INFORMATION TABLE
VOB#1(10min.) VOB#62(5min.) VOB#3(30sec.) VOB#64(8min.) · · · ·
VOB#5(18min.) VOB#72(5min.) VOB#4(30sec.) VOB#74(8min.) · · · ·
PGC COMMAND TABLE NULL
PGC INFORMATION #4
PGC LINK INFORMATION NULL
PGC STANDARD INFORMATION 3Loop
PG MAP NULL
VOB POSITION INFORMATION TABLE
VOB#1(10min.) VOB#51(5min.) VOB#2(30sec.) VOB#52(8min.) · · · ·
VOB#5(18min.) VOB#55(5min.) VOB#6(30sec.) VOB#56(8min.)
PGC COMMAND TABLE NULL
PGC INFORMATION #5
PGC LINK INFORMATION NULL
PGC STANDARD INFORMATION NULL
PG MAP NULL
VOB POSITION INFORMATION TABLE
VOB#6(10min.) VOB#8(5min.) VOB#16(8min.) VOB#15(5min.) VOB#16(8min.)
PGC COMMAND TABLE CmpRegLink R1,3, "=" ,PGC#15 CmpRegLink R1,4, "=" ,PGC#16
PGC INFORMATION #6
PGC LINK INFORMATION NULL
PGC STANDARD INFORMATION NULL
PGC MAP NULL
VOB POSITION INFORMATION TABLE
VOB#17(50sec.) VOB#18(5min.) VOB#19(8min.)
PGC COMMAND TABLE TitlePlay Title#5

a10

FIG. 10B

PGC INFORMATION

PGC LINK INFORMATION
PGC STANDARD INFORMATION
PG MAP
VOB POSITION INFORMATION TABLE
PGC COMMAND TABLE

FIG. 10C

VOB POSITION INFORMATION TABLE

REPRODUCTION TIME OF VOB#1	OFFSET FOR VOB#1	NO. OF BLOCKS FORMING VOB#1
REPRODUCTION TIME OF VOB#2	OFFSET FOR VOB#2	NO. OF BLOCKS FORMING VOB#2
REPRODUCTION TIME OF VOB#3	OFFSET FOR VOB#3	NO. OF BLOCKS FORMING VOB#3
REPRODUCTION TIME OF VOB#4	OFFSET FOR VOB#4	NO. OF BLOCKS FORMING VOB#4
REPRODUCTION TIME OF VOB#5	OFFSET FOR VOB#5	NO. OF BLOCKS FORMING VOB#5
REPRODUCTION TIME OF VOB#6	OFFSET FOR VOB#6	NO. OF BLOCKS FORMING VOB#6
REPRODUCTION TIME OF VOB#7	OFFSET FOR VOB#7	NO. OF BLOCKS FORMING VOB#7
REPRODUCTION TIME OF VOB#8	OFFSET FOR VOB#8	NO. OF BLOCKS FORMING VOB#8
	⋮	

FIG. 11

(Video_Manager)

VM MANAGEMENT TABLE
VM INTERNAL TITLE SEARCH POINTER TABLE
NO. OF TITLE SEARCH POINTERS
VM INTERNAL TITLE SEARCH POINTER # 1
VM INTERNAL TITLE SEARCH POINTER # 2
VM INTERNAL TITLE SEARCH POINTER # 3
VM INTERNAL TITLE SEARCH POINTER # 4
VM INTERNAL TITLE SEARCH POINTER # 5
VM INTERNAL TITLE SEARCH POINTER # 6
VM INTERNAL TITLE SEARCH POINTER # 7
VM INTERNAL TITLE SEARCH POINTER # 8
⋮
VM INTERNAL TITLE SEARCH POINTER # 98
VM INTERNAL TITLE SEARCH POINTER # 99
PGC INFORMATION # 1_For_Menu
PGC LINK INFORMATION PGC# 1
PGC STANDARD INFORMATION NULL
PG MAP NULL
VOB POSITION INFORMATION TABLE VOB# 1_For_Menu
PGC COMMAND TABLE NULL
VOB# 1_For_Menu
MANAGEMENT INFORMATION PACK(PLURALITY OF TitlePlay)
SUB-PICTURE(CHARACTER STRINGS FOR TITLE NAMES)
MAIN IMAGE(BACKGROUND IMAGE)

FIG. 12

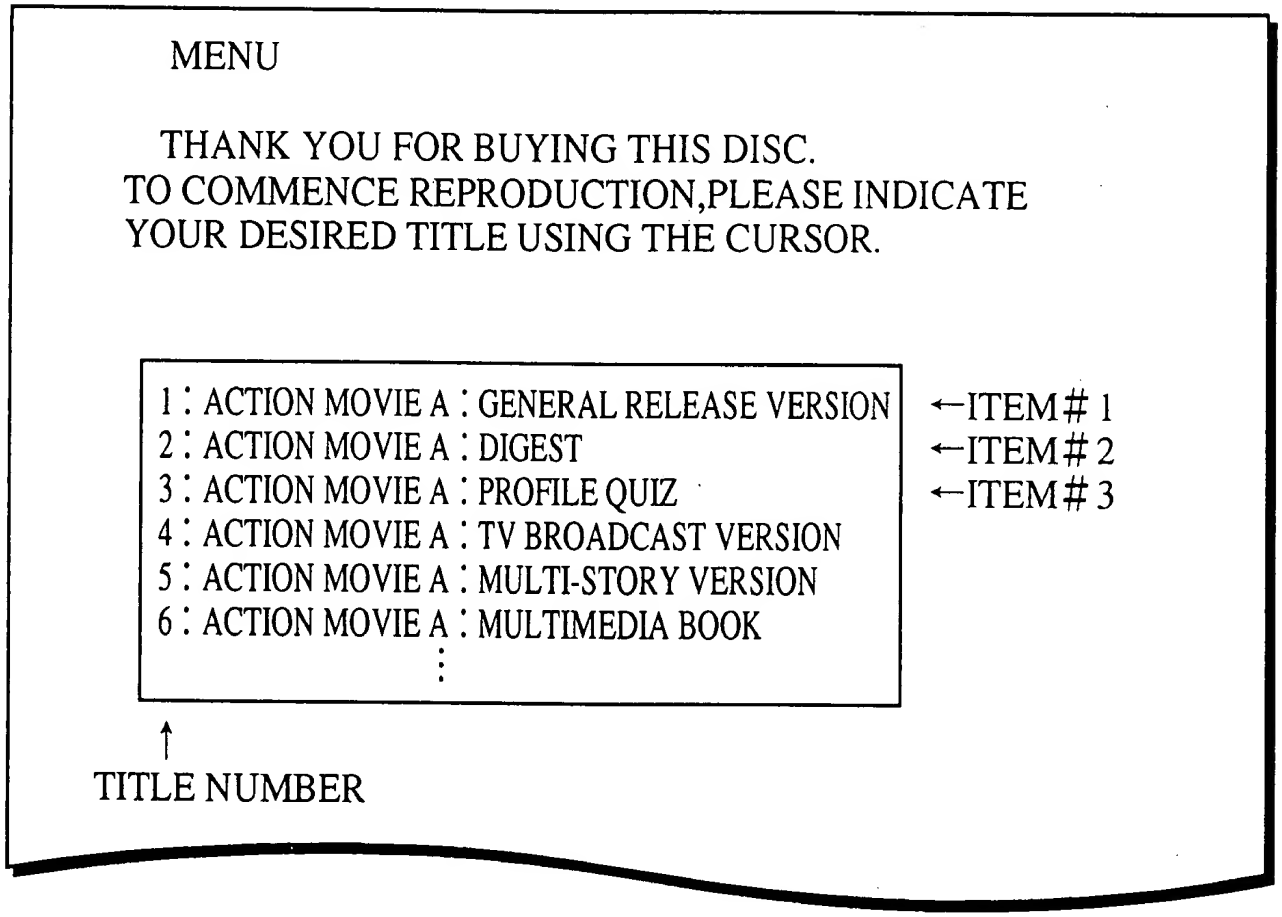

MENU
THANK YOU FOR BUYING THIS DISC.
TO COMMENCE REPRODUCTION,PLEASE INDICATE
YOUR DESIRED TITLE USING THE CURSOR.
1 : ACTION MOVIE A : GENERAL RELEASE VERSION
2 : ACTION MOVIE A : DIGEST
3 : ACTION MOVIE A : PROFILE QUIZ
4 : ACTION MOVIE A : TV BROADCAST VERSION
5 : ACTION MOVIE A : MULTI-STORY VERSION
6 : ACTION MOVIE A : MULTIMEDIA BOOK
←ITEM# 1
←ITEM# 2
←ITEM# 3
TITLE NUMBER

FIG. 13

MANAGEMENT INFORMATION PACK · HIGHLIGHT INFORMATION

ITEM INFORMATION # 1	PALETTE CONVERSION RANGE
	Title Play Title# 1
ITEM INFORMATION # 2	PALETTE CONVERSION RANGE
	Title Play Title# 2
ITEM INFORMATION # 3	PALETTE CONVERSION RANGE
	Title Play Title# 3
ITEM INFORMATION # 4	PALETTE CONVERSION RANGE
	Title Play Title# 4
ITEM INFORMATION # 5	PALETTE CONVERSION RANGE
	Title Play Title# 5
ITEM INFORMATION # 6	PALETTE CONVERSION RANGE
	Title Play Title# 6

FIG. 14

VIDEO MANAGER INTERNAL TITLE SEARCH POINTER TABLE

a141 TITLE PLAYBACK TYPE a142 a143

	SEQUENTIAL SINGLE PGC IDENTIFICATION FLAG	NO BRANCH FLAG	NO BRANCH BETWEEN TITLES FLAG	TITLE SET NUMBER	VTS INTERNAL TITLE NUMBER
TITLE SEARCH POINTER #1	ON	ON	ON	TitleSet#1	Title#1
TITLE SEARCH POINTER #2	OFF	OFF	ON	TitleSet#1	Title#2
TITLE SEARCH POINTER #3	OFF	OFF	ON	TitleSet#1	Title#3
TITLE SEARCH POINTER #4	OFF	OFF	OFF	TitleSet#1	Title#4
TITLE SEARCH POINTER #5	OFF	OFF	ON	TitleSet#1	Title#5
TITLE SEARCH POINTER #6	OFF	OFF	OFF	TitleSet#1	Title#6
TITLE SEARCH POINTER #7	OFF	OFF	ON	TitleSet#2	Title#1
TITLE SEARCH POINTER #8	OFF	OFF	ON	TitleSet#2	Title#2
TITLE SEARCH POINTER #9	OFF	OFF	ON	TitleSet#2	Title#3

FIG. 15

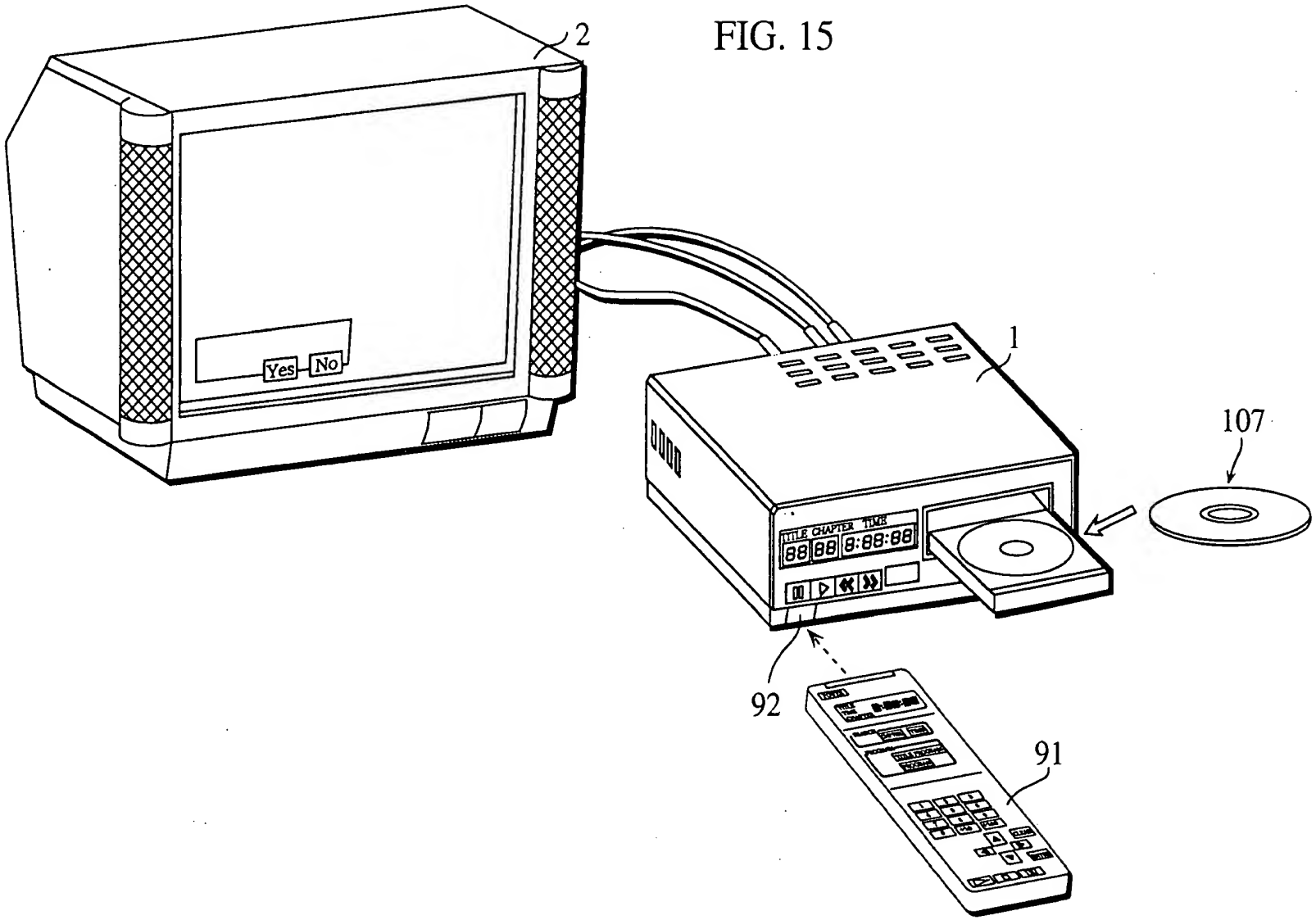


FIG. 16

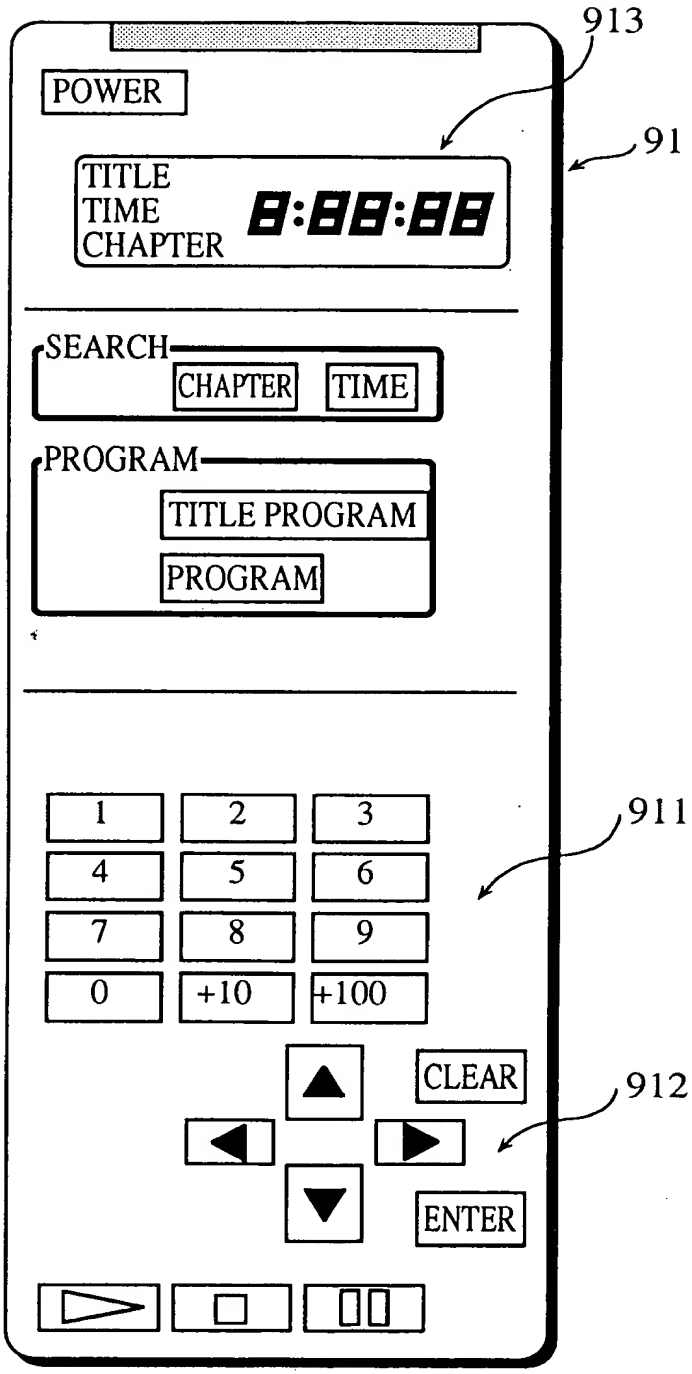

913
91
POWER
TITLE
TIME
CHAPTER
8:88:88
SEARCH
CHAPTER
TIME
PROGRAM
TITLE PROGRAM
PROGRAM
911
1
2
3
4
5
6
7
8
9
0
+10
+100
CLEAR
912
ENTER

FIG. 17

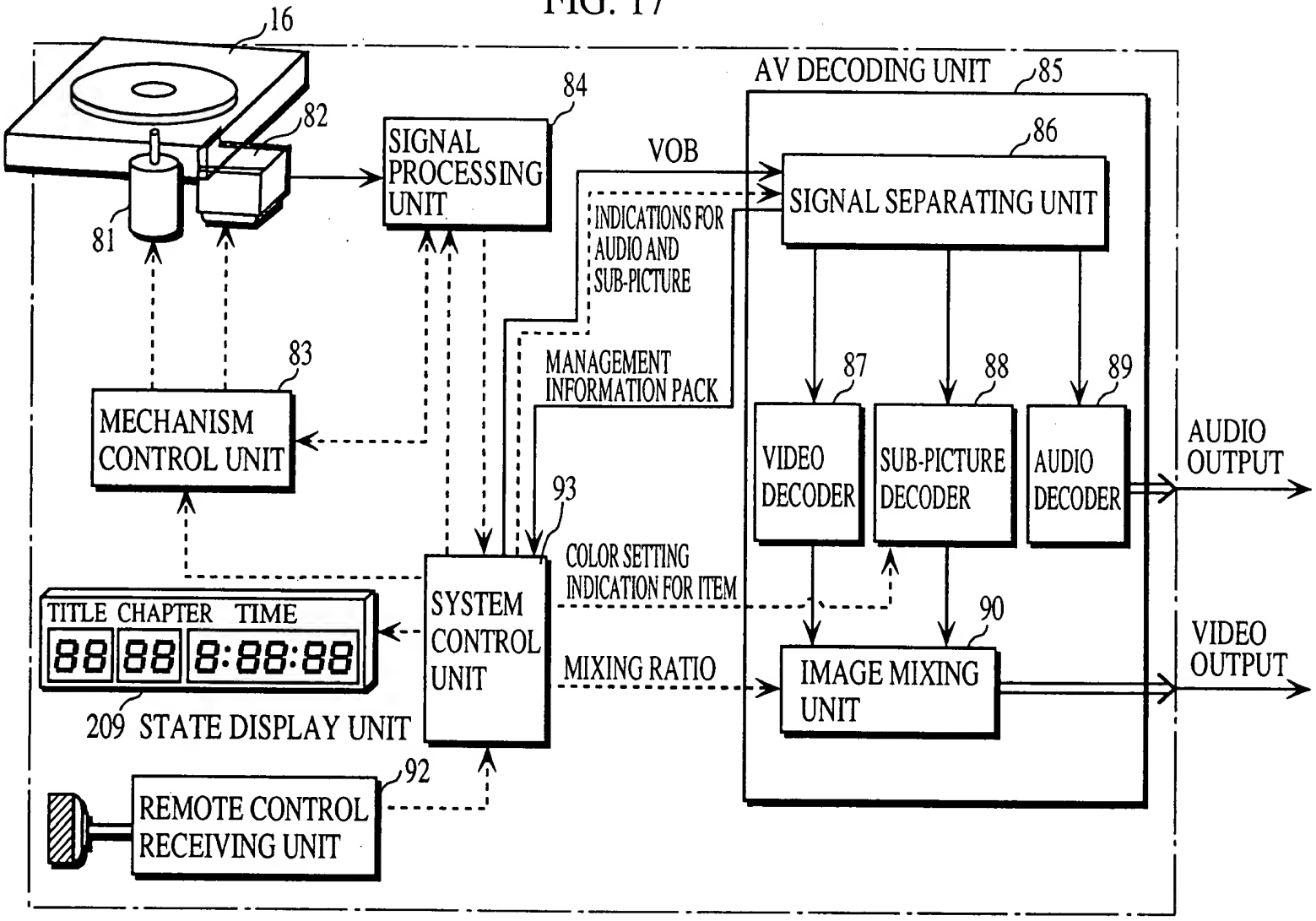

16
82
81
84
SIGNAL PROCESSING UNIT
VOB
AV DECODING UNIT
85
86
SIGNAL SEPARATING UNIT
INDICATIONS FOR AUDIO AND SUB-PICTURE
MANAGEMENT INFORMATION PACK
83
MECHANISM CONTROL UNIT
87
88
89
VIDEO DECODER
SUB-PICTURE DECODER
AUDIO DECODER
AUDIO OUTPUT
93
COLOR SETTING INDICATION FOR ITEM
TITLE CHAPTER TIME
88 88 8:88:88
SYSTEM CONTROL UNIT
90
MIXING RATIO
IMAGE MIXING UNIT
VIDEO OUTPUT
209 STATE DISPLAY UNIT
92
REMOTE CONTROL RECEIVING UNIT

FIG. 18

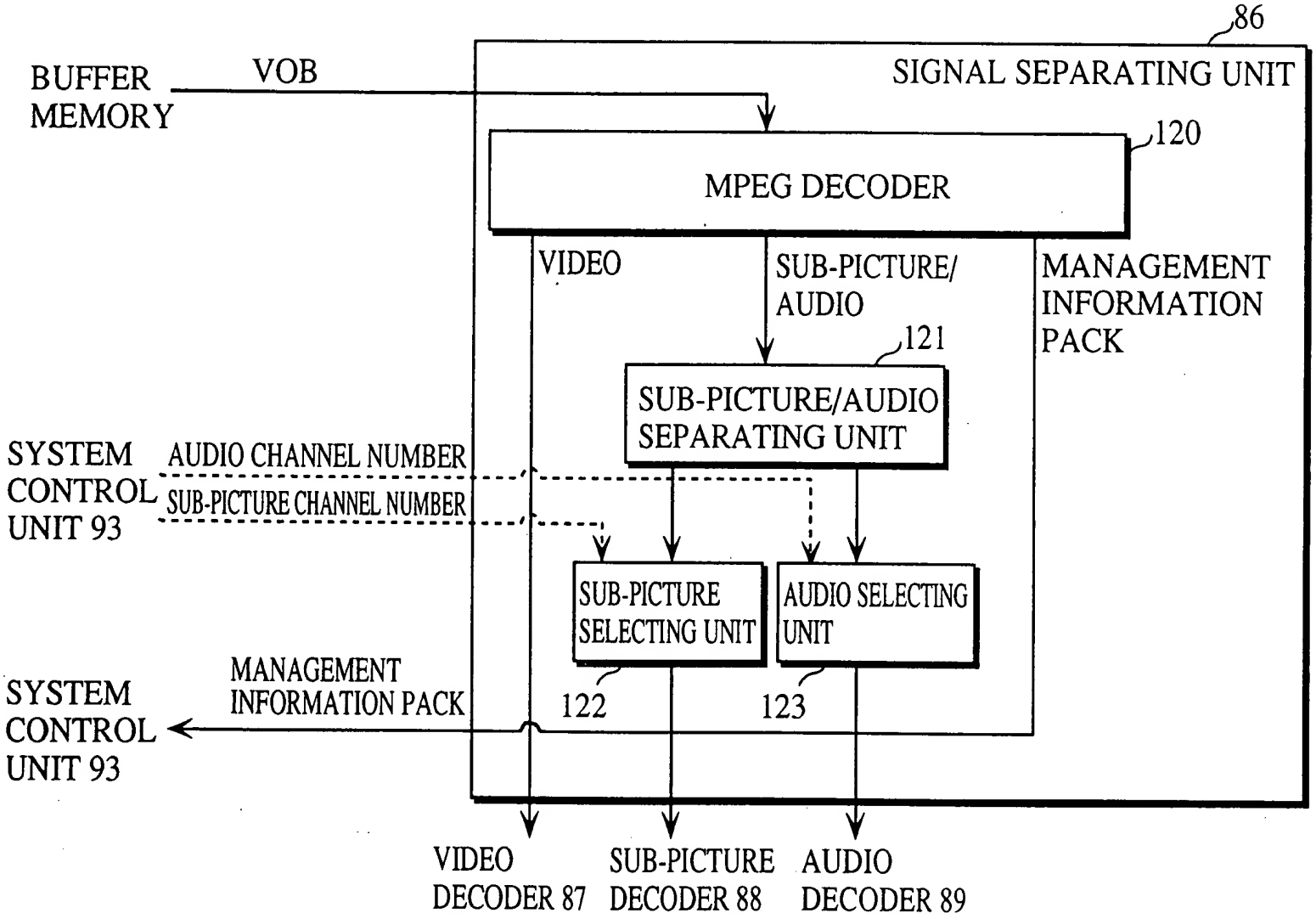

86
SIGNAL SEPARATING UNIT
BUFFER MEMORY
VOB
120
MPEG DECODER
VIDEO
SUB-PICTURE/ AUDIO
MANAGEMENT INFORMATION PACK
121
SUB-PICTURE/AUDIO SEPARATING UNIT
SYSTEM CONTROL UNIT 93
AUDIO CHANNEL NUMBER
SUB-PICTURE CHANNEL NUMBER
SUB-PICTURE SELECTING UNIT
AUDIO SELECTING UNIT
MANAGEMENT INFORMATION PACK
SYSTEM CONTROL UNIT 93
122
123
VIDEO DECODER 87
SUB-PICTURE DECODER 88
AUDIO DECODER 89

FIG. 19

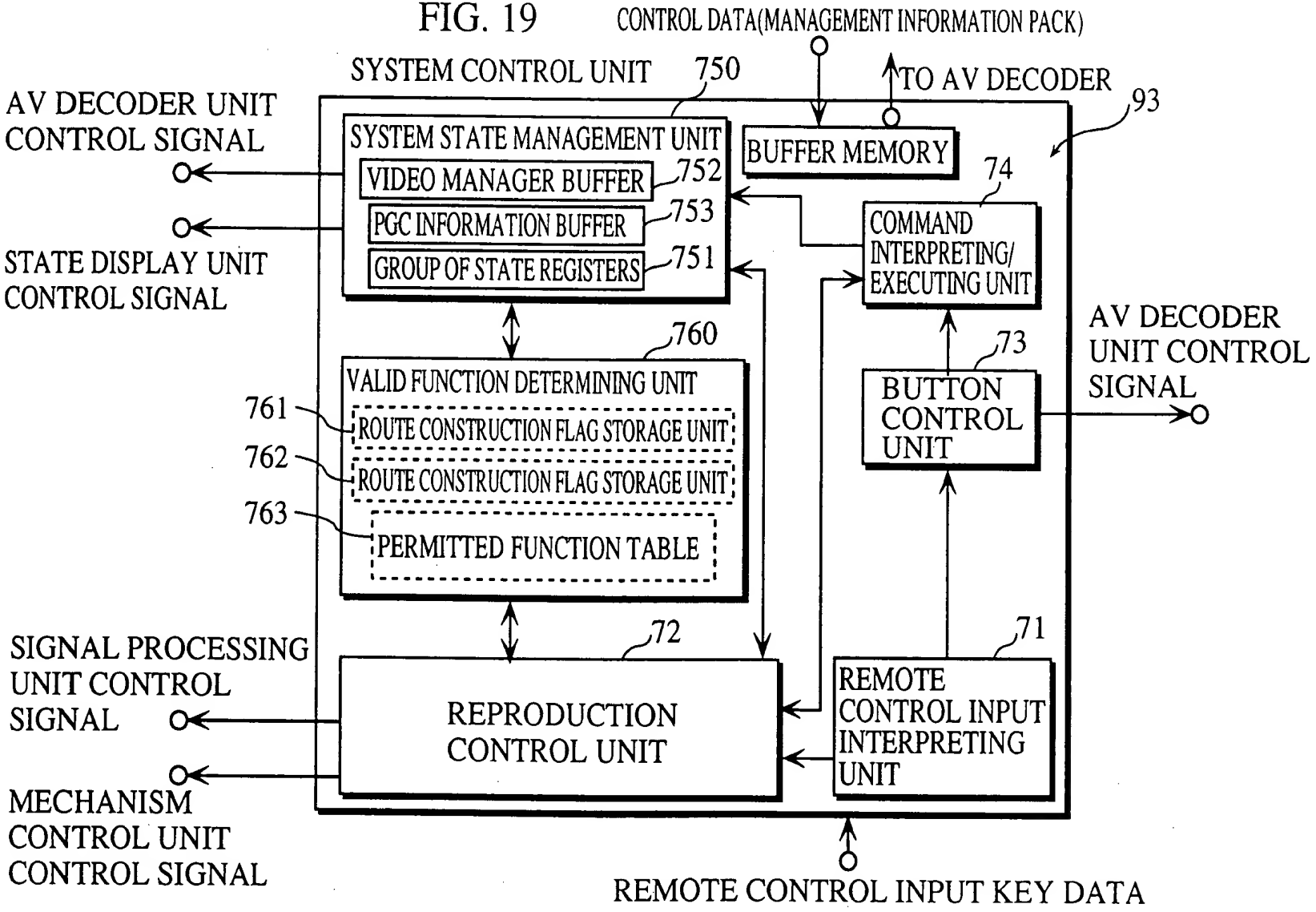

CONTROL DATA(MANAGEMENT INFORMATION PACK)
SYSTEM CONTROL UNIT
750
TO AV DECODER
93
AV DECODER UNIT CONTROL SIGNAL
SYSTEM STATE MANAGEMENT UNIT
VIDEO MANAGER BUFFER
752
PGC INFORMATION BUFFER
753
GROUP OF STATE REGISTERS
751
BUFFER MEMORY
74
COMMAND INTERPRETING/ EXECUTING UNIT
STATE DISPLAY UNIT CONTROL SIGNAL
760
VALID FUNCTION DETERMINING UNIT
761
ROUTE CONSTRUCTION FLAG STORAGE UNIT
762
ROUTE CONSTRUCTION FLAG STORAGE UNIT
763
PERMITTED FUNCTION TABLE
73
BUTTON CONTROL UNIT
AV DECODER UNIT CONTROL SIGNAL
SIGNAL PROCESSING UNIT CONTROL SIGNAL
72
REPRODUCTION CONTROL UNIT
71
REMOTE CONTROL INPUT INTERPRETING UNIT
MECHANISM CONTROL UNIT CONTROL SIGNAL
REMOTE CONTROL INPUT KEY DATA

FIG. 20

FUNCTION	PERMISSION CONDITION		
	SEQUENTIAL SINGLE PGC FLAG	NO BRANCH FLAG	NO BRANCH BETWEEN TITLES FLAG
CHAPTER NUMBER DISPLAY	ON	ON	—
REPRODUCTION PROGRESSION TIME DISPLAY	ON	ON	—
CHAPTER NUMBER SEARCH	ON	ON	—
TIME SEARCH	ON	ON	—
CHAPTER PROGRAMMING FUNCTION	ON	ON	—
TITLE PROGRAMMING FUNCTION	ON	—	ON

FIG. 21A

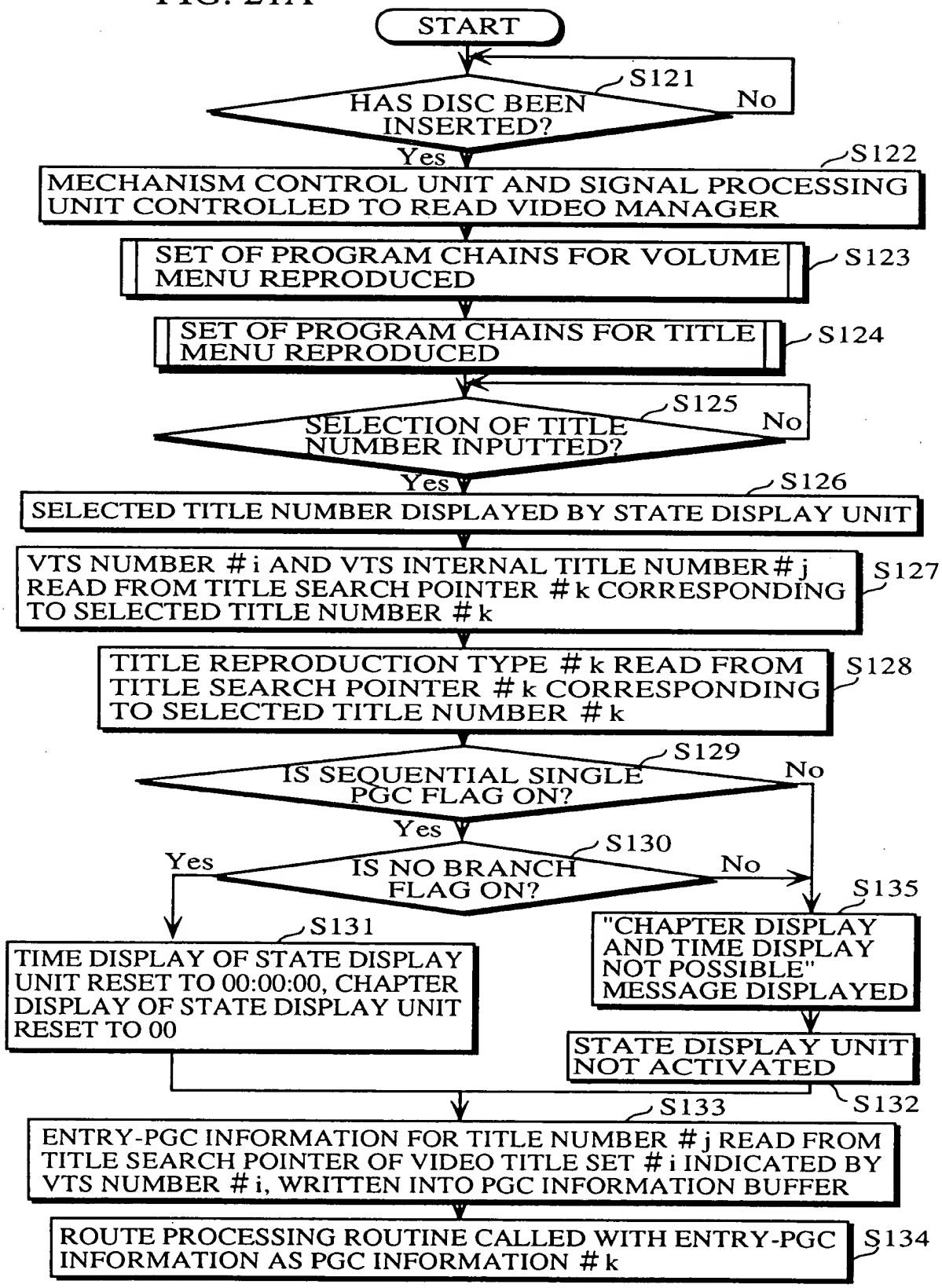

START
S121
HAS DISC BEEN INSERTED?
No
Yes
S122
MECHANISM CONTROL UNIT AND SIGNAL PROCESSING UNIT CONTROLLED TO READ VIDEO MANAGER
SET OF PROGRAM CHAINS FOR VOLUME MENU REPRODUCED
S123
SET OF PROGRAM CHAINS FOR TITLE MENU REPRODUCED
S124
S125
SELECTION OF TITLE NUMBER INPUTTED?
No
Yes
S126
SELECTED TITLE NUMBER DISPLAYED BY STATE DISPLAY UNIT
VTS NUMBER #i AND VTS INTERNAL TITLE NUMBER #j READ FROM TITLE SEARCH POINTER #k CORRESPONDING TO SELECTED TITLE NUMBER #k
S127
TITLE REPRODUCTION TYPE #k READ FROM TITLE SEARCH POINTER #k CORRESPONDING TO SELECTED TITLE NUMBER #k
S128
S129
IS SEQUENTIAL SINGLE PGC FLAG ON?
No
Yes
S130
IS NO BRANCH FLAG ON?
Yes
No
S131
TIME DISPLAY OF STATE DISPLAY UNIT RESET TO 00:00:00, CHAPTER DISPLAY OF STATE DISPLAY UNIT RESET TO 00
S135
"CHAPTER DISPLAY AND TIME DISPLAY NOT POSSIBLE" MESSAGE DISPLAYED
STATE DISPLAY UNIT NOT ACTIVATED
S132
S133
ENTRY-PGC INFORMATION FOR TITLE NUMBER #j READ FROM TITLE SEARCH POINTER OF VIDEO TITLE SET #i INDICATED BY VTS NUMBER #i, WRITTEN INTO PGC INFORMATION BUFFER
ROUTE PROCESSING ROUTINE CALLED WITH ENTRY-PGC INFORMATION AS PGC INFORMATION #k
S134

FIG. 21B

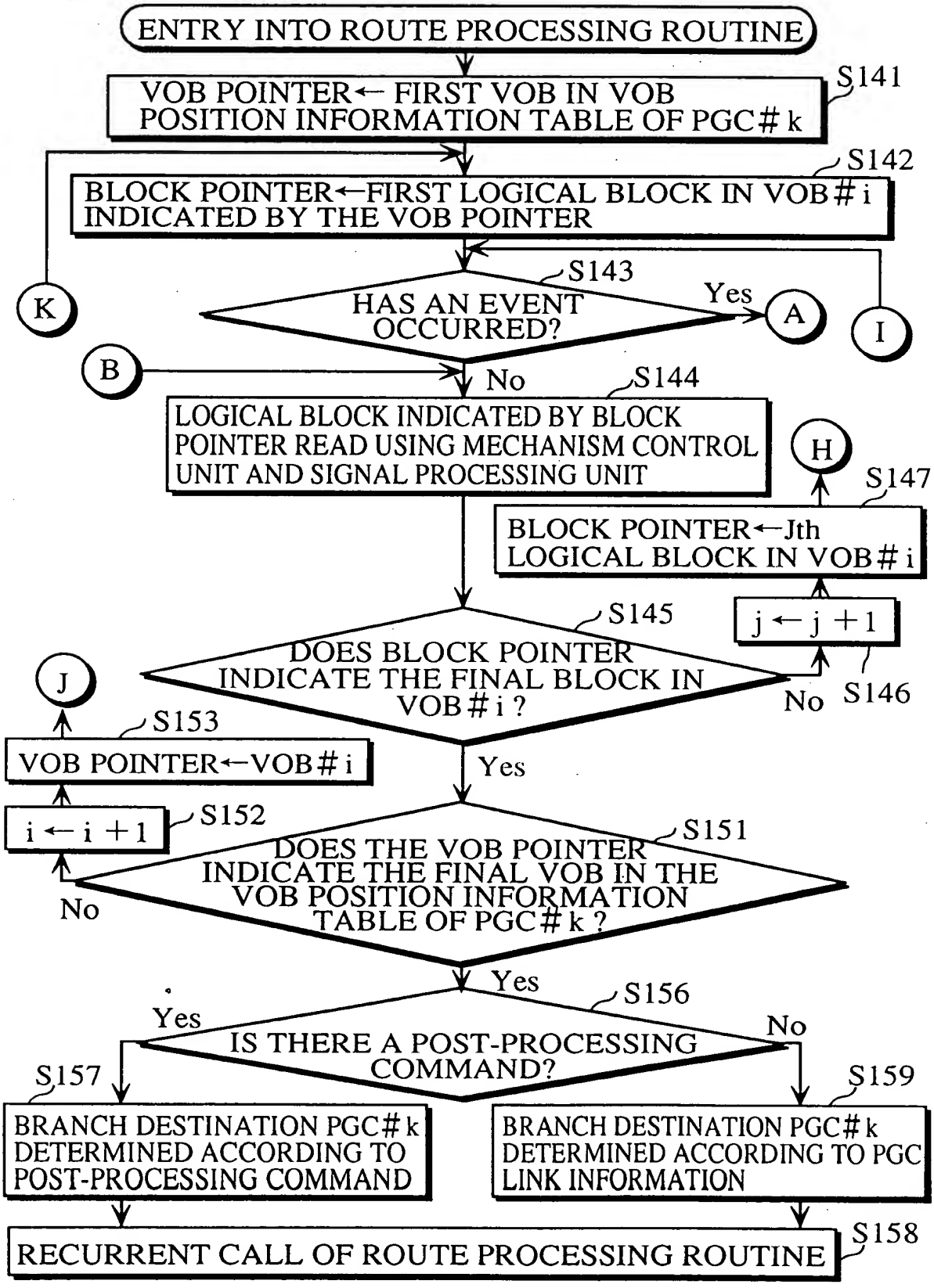

ENTRY INTO ROUTE PROCESSING ROUTINE
VOB POINTER← FIRST VOB IN VOB POSITION INFORMATION TABLE OF PGC# k
S141
BLOCK POINTER←FIRST LOGICAL BLOCK IN VOB# i INDICATED BY THE VOB POINTER
S142
S143
HAS AN EVENT OCCURRED?
Yes
No
K
A
I
B
S144
LOGICAL BLOCK INDICATED BY BLOCK POINTER READ USING MECHANISM CONTROL UNIT AND SIGNAL PROCESSING UNIT
H
S147
BLOCK POINTER←Jth LOGICAL BLOCK IN VOB# i
j ← j +1
S145
DOES BLOCK POINTER INDICATE THE FINAL BLOCK IN VOB# i ?
No
S146
J
S153
VOB POINTER←VOB# i
Yes
i ← i +1
S152
S151
DOES THE VOB POINTER INDICATE THE FINAL VOB IN THE VOB POSITION INFORMATION TABLE OF PGC# k ?
No
Yes
S156
Yes
IS THERE A POST-PROCESSING COMMAND?
No
S157
S159
BRANCH DESTINATION PGC# k DETERMINED ACCORDING TO POST-PROCESSING COMMAND
BRANCH DESTINATION PGC# k DETERMINED ACCORDING TO PGC LINK INFORMATION
S158
RECURRENT CALL OF ROUTE PROCESSING ROUTINE

FIG. 21C

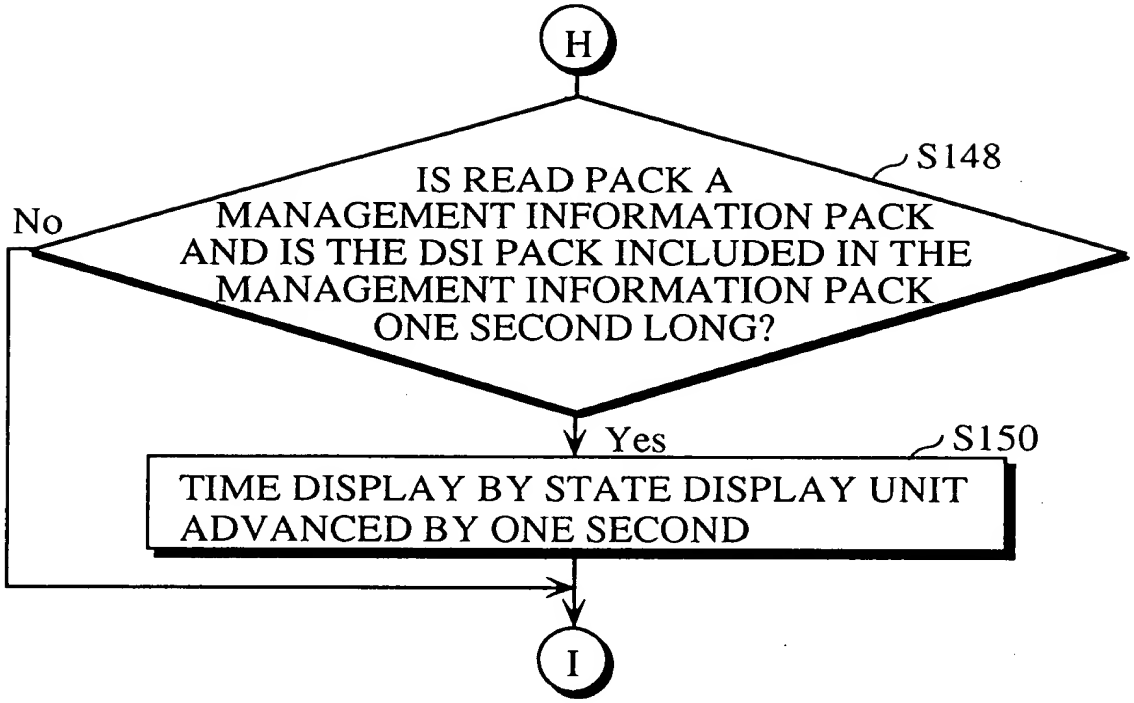


FIG. 21D

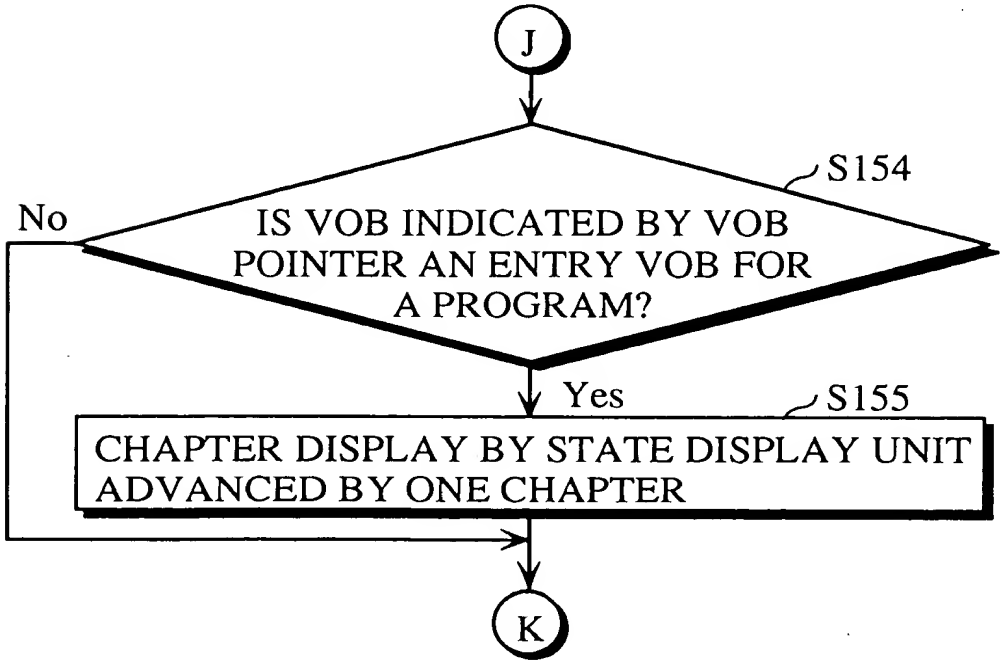


FIG. 22A

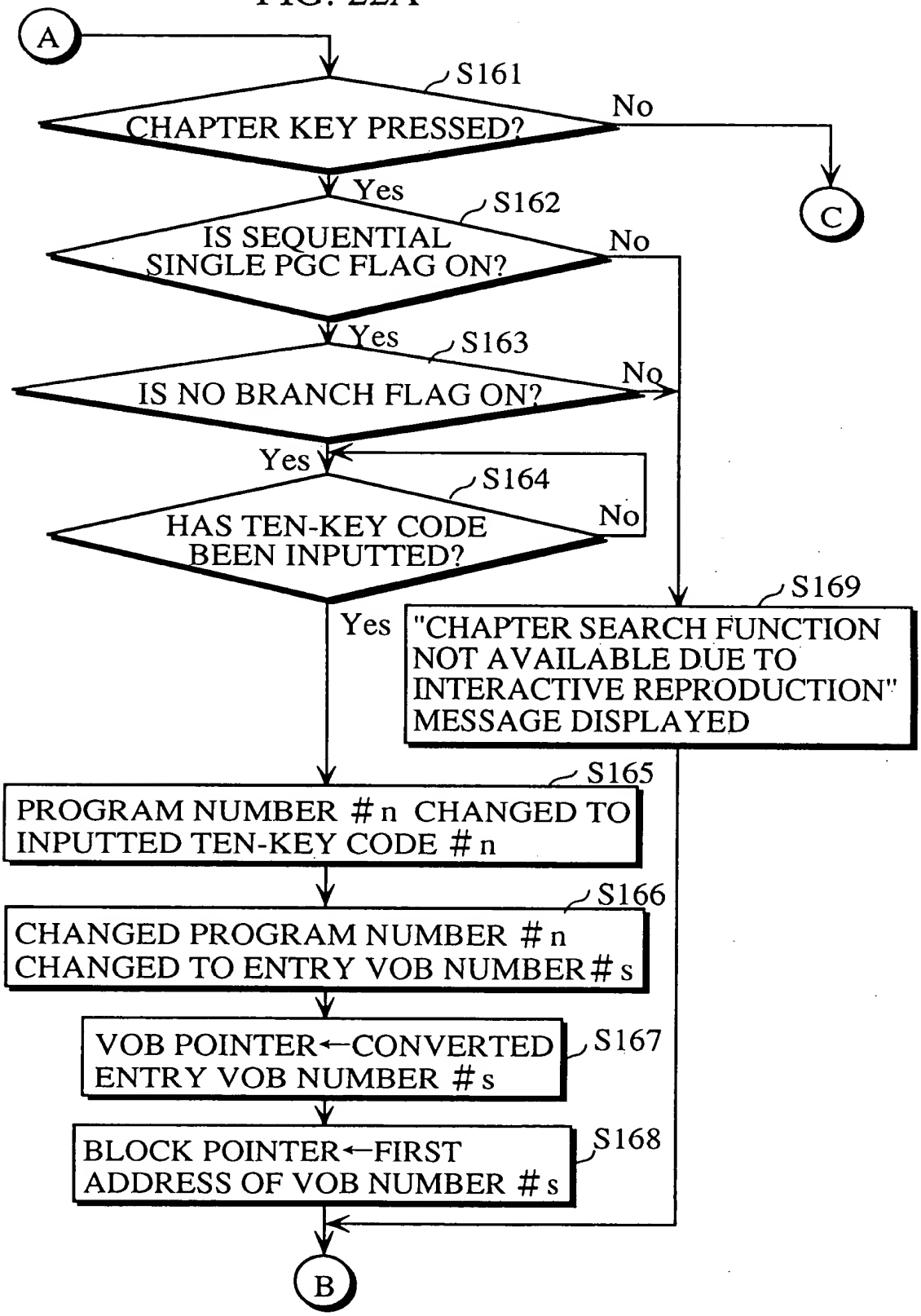

A
S161
CHAPTER KEY PRESSED?
No
C
Yes
S162
IS SEQUENTIAL SINGLE PGC FLAG ON?
No
Yes
S163
IS NO BRANCH FLAG ON?
No
Yes
S164
HAS TEN-KEY CODE BEEN INPUTTED?
No
S169
Yes
"CHAPTER SEARCH FUNCTION NOT AVAILABLE DUE TO INTERACTIVE REPRODUCTION" MESSAGE DISPLAYED
S165
PROGRAM NUMBER #n CHANGED TO INPUTTED TEN-KEY CODE #n
S166
CHANGED PROGRAM NUMBER #n CHANGED TO ENTRY VOB NUMBER#s
VOB POINTER←CONVERTED ENTRY VOB NUMBER #s
S167
BLOCK POINTER←FIRST ADDRESS OF VOB NUMBER #s
S168
B

FIG. 22B

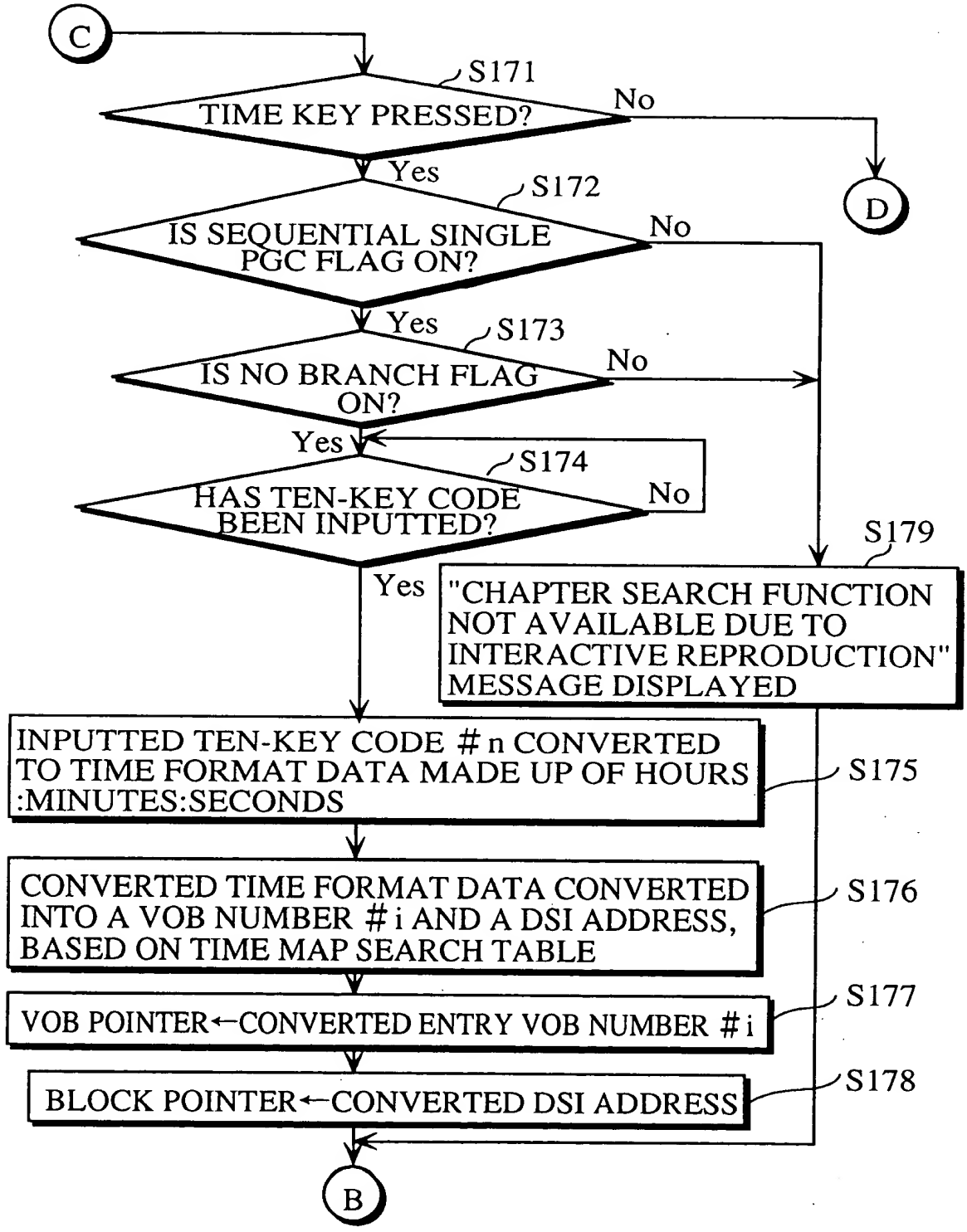

C
S171
TIME KEY PRESSED?
No
Yes
D
S172
IS SEQUENTIAL SINGLE PGC FLAG ON?
No
Yes
S173
IS NO BRANCH FLAG ON?
No
Yes
S174
HAS TEN-KEY CODE BEEN INPUTTED?
No
Yes
S179
"CHAPTER SEARCH FUNCTION NOT AVAILABLE DUE TO INTERACTIVE REPRODUCTION" MESSAGE DISPLAYED
INPUTTED TEN-KEY CODE # n CONVERTED TO TIME FORMAT DATA MADE UP OF HOURS :MINUTES:SECONDS
S175
CONVERTED TIME FORMAT DATA CONVERTED INTO A VOB NUMBER # i AND A DSI ADDRESS, BASED ON TIME MAP SEARCH TABLE
S176
VOB POINTER←CONVERTED ENTRY VOB NUMBER # i
S177
BLOCK POINTER←CONVERTED DSI ADDRESS
S178
B

FIG. 22C

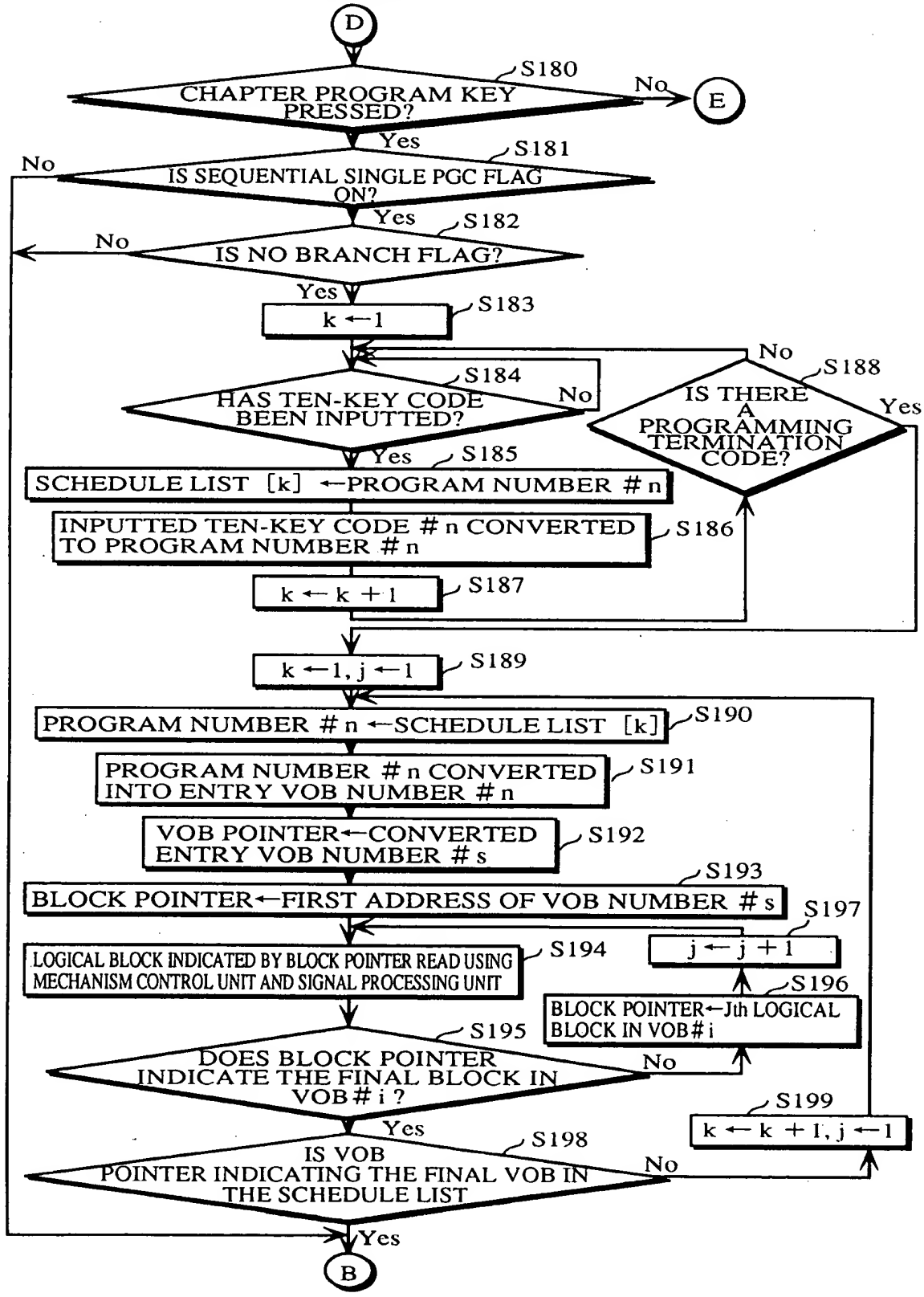

D
S180
CHAPTER PROGRAM KEY PRESSED?
No
E
Yes
S181
No
IS SEQUENTIAL SINGLE PGC FLAG ON?
Yes
S182
No
IS NO BRANCH FLAG?
Yes
S183
k ← 1
No
S188
S184
HAS TEN-KEY CODE BEEN INPUTTED?
No
IS THERE A PROGRAMMING TERMINATION CODE?
Yes
Yes
S185
SCHEDULE LIST [k] ← PROGRAM NUMBER # n
INPUTTED TEN-KEY CODE # n CONVERTED TO PROGRAM NUMBER # n
S186
k ← k + 1
S187
k ← 1, j ← 1
S189
PROGRAM NUMBER # n ← SCHEDULE LIST [k]
S190
PROGRAM NUMBER # n CONVERTED INTO ENTRY VOB NUMBER # n
S191
VOB POINTER ← CONVERTED ENTRY VOB NUMBER # s
S192
S193
BLOCK POINTER ← FIRST ADDRESS OF VOB NUMBER # s
S197
LOGICAL BLOCK INDICATED BY BLOCK POINTER READ USING MECHANISM CONTROL UNIT AND SIGNAL PROCESSING UNIT
S194
j ← j + 1
S196
BLOCK POINTER ← Jth LOGICAL BLOCK IN VOB # i
S195
DOES BLOCK POINTER INDICATE THE FINAL BLOCK IN VOB # i ?
No
S199
k ← k + 1, j ← 1
Yes
S198
IS VOB POINTER INDICATING THE FINAL VOB IN THE SCHEDULE LIST
No
Yes
B

FIG. 22D

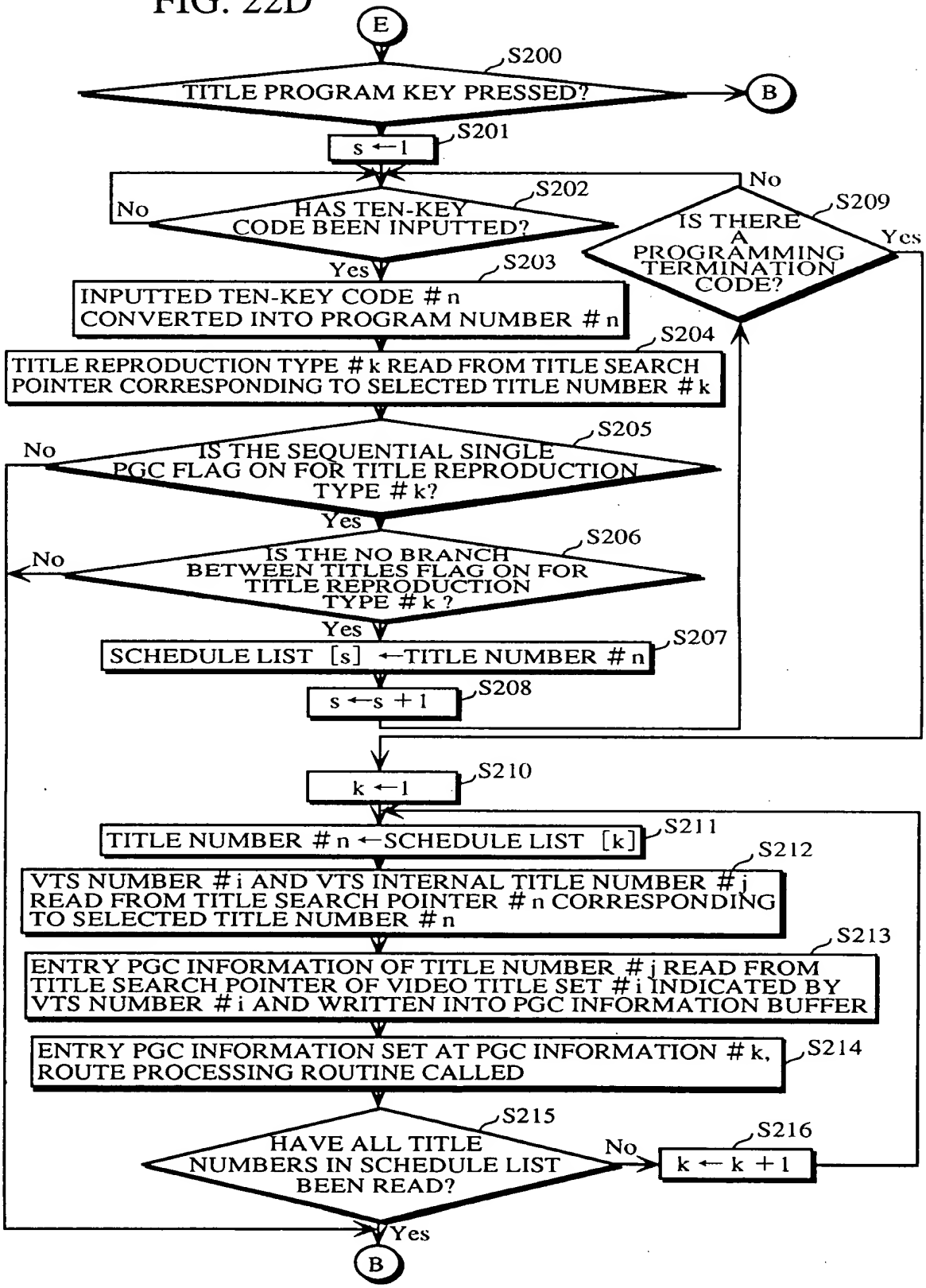

E
S200
TITLE PROGRAM KEY PRESSED?
B
S201
s ← 1
S202
No
HAS TEN-KEY CODE BEEN INPUTTED?
Yes
S209
No
IS THERE A PROGRAMMING TERMINATION CODE?
Yes
S203
INPUTTED TEN-KEY CODE # n CONVERTED INTO PROGRAM NUMBER # n
S204
TITLE REPRODUCTION TYPE # k READ FROM TITLE SEARCH POINTER CORRESPONDING TO SELECTED TITLE NUMBER # k
S205
No
IS THE SEQUENTIAL SINGLE PGC FLAG ON FOR TITLE REPRODUCTION TYPE # k?
Yes
S206
No
IS THE NO BRANCH BETWEEN TITLES FLAG ON FOR TITLE REPRODUCTION TYPE # k ?
Yes
S207
SCHEDULE LIST [s] ← TITLE NUMBER # n
S208
s ← s + 1
S210
k ← 1
S211
TITLE NUMBER # n ← SCHEDULE LIST [k]
S212
VTS NUMBER # i AND VTS INTERNAL TITLE NUMBER # j READ FROM TITLE SEARCH POINTER # n CORRESPONDING TO SELECTED TITLE NUMBER # n
S213
ENTRY PGC INFORMATION OF TITLE NUMBER # j READ FROM TITLE SEARCH POINTER OF VIDEO TITLE SET # i INDICATED BY VTS NUMBER # i AND WRITTEN INTO PGC INFORMATION BUFFER
S214
ENTRY PGC INFORMATION SET AT PGC INFORMATION # k, ROUTE PROCESSING ROUTINE CALLED
S215
HAVE ALL TITLE NUMBERS IN SCHEDULE LIST BEEN READ?
No
S216
k ← k + 1
Yes
B

FIG. 23

FIRST FLAG ↓	SECOND FLAG ↓	THIRD FLAG ↓	FOURTH FLAG ↓
SINGLE ROUTE INFORMATION	NO LOOP INFORMATION	NO AUTOMATIC BRANCH	NO INTERACTIVE BRANCH
ON	OFF	OFF	OFF